
ASGO
Asian Society of Gynecologic Oncology
TAGO
ASGO 2020
6th International Workshop
on Gynecologic Oncology
Date | Dec 19-20, 2020
Venue | CHANG YUNG-FA FOUNDATION International Convention Center
Organized by TAGO

Contents

Welcome Message

Dear Colleagues and Friends,

Welcome to the 6th International Workshop on Gynecologic Oncology of the Asian Society of Gynecologic Oncology (ASGO Workshop 2020) in Taiwan!

As the president of ASGO, I cordially invite you to the 6th International Workshop on Gynecologic Oncology of ASGO, which will be held on December 19th and 20th 2020 in CHANG YUNG-FA FOUNDATION International Convention Center, Taipei, Taiwan. ASGO was established by leaders of Japanese and Korean gynecologists in consideration of the need for an Asian regional society dedicated to gynecologic cancer, and held its first meeting in Seoul in 2008. At present, gynecological oncology societies from 11 countries and regions have participated, and it has become a truly unified organization. Six biennial meetings and five international workshops have been held to date, however this ASGO Workshop 2020 in Taiwan will be the first time for the congress to be held outside of Japan and Korea. This means that this workshop will propel ASGO out of its founders' zone, Japan and Korea, and begin to truly branch out across Asia. The development of surgical techniques and new treatments in recent years is remarkable, and we must learn and acquire them without delay. Let the exchange of knowledge and experience with our Asian colleagues be a symbol of the ASGO Workshop 2020!

ASGO Workshop 2020 will warmly welcome you with numerous scientific programs as well as traditional Taiwanese culture. We sincerely look forward to meeting you at the 6th International Workshop on Gynecologic Oncology of the Asian Society of Gynecologic Oncology in 2020.

Sincerely yours,

Daisuke Aoki

Daisuke Aoki, M.D., Ph.D.
The President of Asian Society of Gynecologic Oncology

Dear Colleagues,

On behalf of the organizing committee, we are honored to cordially invite you to participate in the 6th International Workshop on Gynecologic Oncology of ASGO (ASGO Workshop 2020), which will be held on December 19th & 20th in CHANG YUNG-FA FOUNDATION International Convention Center, Taipei, Taiwan. Due to the COVID-19 pandemic, ASGO Workshop 2020 will be hosted in hybrid meeting.

ASGO Workshop has been contributing to the research, prevention and treatment of gynecological cancer. Since commenced in 2008, ASGO has made tremendous progress by providing unified, comprehensive medical and surgical care to women with reproductive tract cancers from diagnosis to completion of treatment. This year we will have speeches on topics covering in a variety of fields from distinguished speakers in Asia and all of the world to discuss the very latest advances in Gynecological Oncology treatment and care.

This is the first time ASGO Workshop is held outside of Japan and Korea. We believe that ASGO Workshop 2020 will certainly be one of the most valuable time for all the participants. Your outstanding contribution and participation will be crucial to the success of the conference. We sincerely look forward to greeting you at the 6th International Workshop on Gynecologic Oncology in Taipei.

Sincerely Yours,

Chih-Ming Ho, M.D.,Ph.D.
ASGO Workshop 2020
Organizing Committee Chair
TAGO President

Organizing Committee

ASGO WORKSHOP

Executive committee members		
President	Daisuke Aoki	(Japan)
Secretary General	Yusuke Kobayashi	(Japan)
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Immediate Past President	Hee-Sug Ryu	(Korea)
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President	Daisuke Aoki	(Japan)
	Duk-Soo Bae	(Korea)
	Neerja Bhatla	(India)
	Karen Chan	(HongKong)
	Efren Domingo	(Philippines)
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	Rongyu Zang	(China)

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	Toshiharu Kamura	(Japan)
	Soon-Beom Kang	(Korea)
	Ikuo Konishi	(Japan)
	Joo-Hyun Nam	(Korea)
	Hee-Sug Ryu	(Korea)
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	Ting-Chang Chang[Vice Chair]	(Taiwan)
	Cheng-Yang Chou	(Taiwan)
	Soon-Cen Huang	(Taiwan)
	Wen-Shiung Liou	(Taiwan)
	Hao, Lin	(Taiwan)
	Peng-Hui Wang	(Taiwan)
	Mu-Hsien Yu	(Taiwan)
	Hung-Cheng Lai	(Taiwan)
	Wen-Fang Cheng	(Taiwan)
	Lian-Shung Yeh	(Taiwan)
	Chien-Hsing Lu	(Taiwan)
	Fu-Shing Liu	(Taiwan)
	Tze-Ho Chen	(Taiwan)
	Takayuki Enomoto	(Japan)
	Kimio Ushijima	(Japan)
	Yong Man Kim	(Korea)
	Jae Weon Kim	(Korea)

TAGO

President

Chih-Ming Ho (Cathay General Hospital)

Executive Director

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Peng-Hui Wang (Taipei Veterans General Hospital)
Hung-Hsueh Chou (Chang Gung Memorial Hospital and Chang Gung University College of Medicine)
Ting-Chang Chang (Chang Gung Memorial Hospital and Chang Gung University College of Medicine)
Wen-Fang Cheng (National Taiwan University Collage of Medicine)
Ming-Shyen Yen (Taipei Veterans General Hospital)

Director

Tang-Yuan Chu (Hualien Tzu Chi Hospital)
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Yao-Ching Hung (China Medical University and China Medical University Hospital)
Nae-Fang Twu (Taipei Veterans General Hospital)
Keng-Fu Hsu (National Cheng Kung University College of Medicine)
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Yi-Jen Chen (Taipei Veterans General Hospital)
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Wen-Shiung Liou (Kaohsiung Veterans General Hospital)
Fu-Shing Liu (Show Chwan Memorial Hospital)
Hung-Cheng Lai (Translational Epigenetic Center, Shuang Ho Hospital)
Yuan-Yee Kan (Yuan's General Hospital)

Executive Supervisor

Lian-Shung Yeh (China Medical University College of Medicine)

Supervisor

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Hao, Lin (Kaohsiung Chang Gung Memorial Hospital)
Soon-Cen Huang (Chi Mei Medical Center)
An- Jen Chiang (Kaohsiung Veterans General Hospital)
Ya-Min Cheng (Kao General Hospital)
Chang-Yao Hsieh (National Taiwan University College of Medicine)

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Tze-Ho Chen (Changhua Christian Hospital)
Tze-Chien Chen (Mackay Memorial Hospital)
Yu-Li Chen (National Taiwan University College of Medicine)

Floor Plan

張榮發基金會國際會議中心 6樓

配置圖僅供參考，攤位大小以實際尺寸為準

Agenda

Date: December 19th 2020 (Sat.)

601 Room	Topic	Speaker	Moderator
09:20-09:25	Opening remarks of ASGO	President: Dr. Daisuke Aoki	
09:25-09:30	Opening remarks of IGCS	Vice President: Dr. Jae-Weon Kim	
09:30-09:35	Opening remarks of TAGO	President: Dr. Chih-Ming Ho	
09:35-09:40	Time for Taiwan - My Beautiful Island		
09:40-10:20	Practice in gynecologic oncology during Covid 19 pandemics		Dr. Hung-Cheng Lai
	Korea	Dr. Sokbom Kang	
	Japan	Dr. Yusuke Kobayashi	
	India	Dr. Neerja Bhatla	
	Malaysia	Dr. Suresh Kumarasamy	
	Taiwan	Dr. Cheng-Chang Chang	
10:20-10:50	Novel Immunotherapy for advanced endometrial cancer (Industrial section)	Dr. Chia-Yen Huang	Dr. Lee-Wen Huang
10:50-11:10	Update on cervical cancer surgery- abdominal or minimally invasive approach	Dr. Se-Ik Kim	Dr. Kung-Liahng Wang
11:10-11:20	Break		
11:20-11:40	Update on treatment of metastatic or relapsed cervical cancer	Dr. Pao-Ling Torng	Dr. Wen-Fang Cheng
11:40-12:00	Radical trachelectomy for early stage cervical cancer at 15-17 weeks of gestation	Dr. Takayuki Enomoto	Dr. Hua-His Wu
12:00-13:00	Lunch		
13:00-13:20	Anatomic dissection in nerve-sparing radical hysterectomy for cervical cancer	Dr. Wu-Chou Lin	Dr. Yiu-Tai Li
13:20-13:40	Molecular characterization and its clinical implication in endometrial cancer	Dr. Ting-Chang Chang	Dr. Shih-Chu Ho
13:40-13:50	Break		
13:50-14:10	Two-step sentinel lymph node mapping strategy in endometrial cancer staging	Dr. Sang-Wun Kim	Dr. Chiou-Chung Yuan
14:10-14:30	Adjuvant therapy for early endometrial cancer- when and how and why?	Dr. Kimio Ushijima	Dr. Ya-Min Cheng

601 Room	Topic	Speaker	Moderator
14:30-14:40	Break		
14:40-15:00	Treatment for stage 4 and metastatic endometrial cancer	Dr. Hee-Seung Kim	Dr. Chyong-Huey Lai
15:00-15:20	Ovarian cancer surgery- 1st and 2nd debulking operation	Dr. Masaki Mandai	Dr. Hung-Hsueh Chou
15:20-15:30	Break		
15:30-15:50	Personalized medicine- Maintenance therapy in ovarian cancer	Dr. Ka-Yu Tse	Dr. Chia-Yen Huang
15:50-16:10	Treatment for relapsed ovarian cancer	Dr. Heng-Cheng Hsu	Dr. Pao-Ling Torng
16:10-16:20	Break		
16:20-16:40	Current role of minimally invasive surgery for ovarian cancer	Dr. Yi-Jen Chen	Dr. Peng-Hui Wang
16:40-17:00	Big data analysis in populational gynecologic oncology- methods and outcomes	Dr. Cheng-I Liao	Dr. Wen-Shiung Liou
17:00-17:10	Break		
17:10-17:30	Shared decision-making in real practice	Dr. Chen-Hsuan Wu	Dr. Hao, Lin
17:30-17:35	The 7th ASGO Biennial Meeting See you in Thailand		

Date: December 19th 2020 (Sat.)

603 Room	Topic	Speaker	Moderator
09:20-09:25	Opening remarks of ASGO	President: Dr. Daisuke Aoki	
09:25-09:30	Opening remarks of IGCS	Vice President: Dr. Jae-Weon Kim	
09:30-09:35	Opening remarks of TAGO	President: Dr. Chih-Ming Ho	
09:35-09:40	Time for Taiwan - My Beautiful Island		
09:40-10:20	Practice in gynecologic oncology during Covid 19 pandemics		Dr. Hung-Cheng Lai
	Korea	Dr. Sokbom Kang	
	Japan	Dr. Yusuke Kobayashi	
	India	Dr. Neerja Bhatla	
	Malaysia	Dr. Suresh Kumarasamy	
	Taiwan	Dr. Cheng-Chang Chang	
10:20-10:40	Precision medicine in gynecologic cancers	Dr. Shu-Jen Chen	Dr. Bor-Ching Sheu
10:40-11:00	Mechanism targeting homologous recombination deficiencies in ovarian cancer	Dr. Katsutoshi ODA	Dr. Tze-Ho Chen
11:00-11:10	Break		
11:10-11:30	Biomarker and genetic testing for PARP inhibitor	Dr. Ya-Min Cheng	Dr. Ming-Shyen Yen
11:30-12:00	Safety and QoL of Avastin in Gyn cancer (Industrial section)	Dr. Hung-Hsueh Chou	Dr. Yu-Min Ke
12:00-12:30	SGO-ROC 10th Council meeting		
12:30-13:00	TAGO 9th Council meeting		
13:00-13:30	Evolving area of maintenance therapy in recurrent ovarian cancer (Industrial section)	Dr. Ying-Cheng Chiang	Dr. Nae-Fang Twu
13:30-13:50	PARP inhibitors in ovarian cancer	Dr. Shih-Tien Hsu	Dr. Yao-Ching Hung
13:50-14:00	Break		
14:00-14:20	Immuno-Oncology in Gynecological Malignancies	Dr. Jen-Ruei Chen	Dr. Keng-Fu Hsu
14:20-14:40	Biomarkers in Immuno-oncology for Gynecological Cancers	Dr. David SP Tan	Dr. Ting-Chang Chang
14:40-14:50	Break		
14:50-15:10	Cell therapy in gynecologic cancers	Dr. Yin-Yi Chang	Dr. Lian-Shung Yeh
15:10-15:40	Trabectedin in gynecological cancer (Industrial section)	Dr. Wen-Shiung Liou	Dr. Fu-Shing Liu
15:40-15:50	Break		
15:50-16:20	What's next for PARP inhibitors? PARPi resistance and ways to overcome (Industrial section)	Dr. Chyong-Huey Lai	Dr. Yuan-Yee Kan
16:20-17:50	Young doctor Session / Oral Presentation		Dr. Cheng-Yang Chou
17:50-17:55	The 7th ASGO Biennial Meeting See you in Thailand		

Date: December 20th 2020 (Sun.)

601 Room	Topic	Speaker	Moderator
09:30-10:00	The Origin of Ovarian Cancer Species and Precancerous Landscape	Dr. Ie-Ming Shih	Dr. Chih-Ming Ho
10:00-10:30	Identification of BRCAness in clinical daily practice: genes, phenotypes, and cases (Industrial section)	Dr. Chien-Feng Li	Dr. Tang-Yuan Chu
10:30-10:40	Break		
10:40-11:10	Optimize the chemotherapy in platinum-sensitive recurrent ovarian cancer and real world data in Taiwan (Industrial section)	Dr. Hung-Hsueh Chou	Dr. Kuan-Chong Chao
11:10-11:30	Update in the treatment for uterine sarcoma	Dr. Mikio Mikami	Dr. Yi-Jen Chen
11:30-11:40	Break		
11:40-12:00	Laparoscopic hyperthermic intraperitoneal chemotherapy	Dr. Kuan-Gen Huang	Dr. Mu-Hsien Yu
12:00-12:20	Cancer during Pregnacy: a big challenge	Dr. Sarikapan Wilailak	Dr. Chien-Hsing Lu
12:20-12:30	Break		
12:30-12:35	The 7th ASGO Biennial Meeting See you in Thailand		

603 Room	Topic	Moderator
09:30-11:00	Young doctor Session / Oral Presentation	Dr. Peng-Hui Wang
11:00-11:10	Break	
11:10-12:30	Young doctor Session / Oral Presentation	Dr. Peng-Hui Wang
12:30-12:35	The 7th ASGO Biennial Meeting See you in Thailand	

Sokbom Kang

Current Position:
Head, Center for Gynecologic Cancer, National Cancer Center
Professor, Graduate School of Cancer Science and Policy

Education:
M.D.,B.S.,Ph.D. Seoul National University, College of Medicine

Professional Experiences (Top 5):
Chair, Ovarian cancer committee, Korean Gynecologic Oncology Group
Editorial advisor, Journal of Gynecologic Oncology

Practice in gynecologic oncology during COVID-19 pandemics in Korea

Sokbom Kang

The standard of care in gynecologic cancers has been inevitably hampered by the COVID-19 crisis. As a result, patients and medical staffs are facing unprecedented challenges in treating cancer. This crisis has interrupted health care delivery for many patients with cancer, who often require frequent visits and extensive utilization of the health care system to manage their disease and treatment complications. This vulnerable population faces an increased risk of severe COVID-19 infection and mortality, increased risk because of delayed cancer diagnosis, or interruption of treatment necessitated by severe acute respiratory syndrome (SARS) CoV-2 infection precautions, as well as the delay or interruption of their usual care for other medical problems. Indeed, from February to April 2020, which was the critical period for COVID-19 in South Korea, many cancer patients experienced delayed treatment. In addition, health care providers are at risk for burnout, exhaustion, and emotional well-being disorders. The situation raised a need among the oncology community for professional recommendations from a reliable source to assess the rapidly unfolding information frequently and objectively and place it into context for the care of this unique patient population. Those recommendations covered issues of minimizing risk of patients, prioritization of patient care, health care team management, recovery plan and clinical research. Many of medical societies announced their own guidelines for management of cancer patients including gynecologic cancers in order to effectively confront this terrible situation. However, those guidelines cannot be applied to every country across the globe because of the different situations of COVID-19.

Yusuke Kobayashi

Current Position:
Assistant Professor, Department of Obstetrics and Gynecology,
Keio University School of Medicine, JAPAN

Education:
2007-2011
Graduate School of Medicine, Keio University
1996-2003
School of Medicine, Tsukuba University

Professional Experiences (Top 5):
2020-Present
Assistant Professor, Department of Obstetrics and Gynecology, Keio University School of Medicine
2019-Present
Secretary-General of Asian Society of Gynecologic Oncology (ASGO)
2019-Present
Associate Editor, Journal of Ovarian Research (JOVR)
2018-Present
Principal Editor, Journal of Gynecologic Oncology (JGO)
2014-2019
Lecturer, Department of Obstetrics and Gynecology, Keio University School of Medicine

Practice in gynecologic oncology during COVID-19 pandemics in Japan

Yusuke Kobayashi

Since December 8, 2019 when the first case of coronavirus disease 2019 (COVID-19) was identified in Wuhan, China, the infection case has increased strikingly. In Japan, as of November 26, there were 136,741 cases of COVID-19 infection, 2,021 deaths and 115,032 discharges from hospitals. To prevent the explosive spread of infection and to minimize the number of severe, fatal, and the total number of infected cases, there has been a strong encouragement to avoid the "Three Cs" (1. Closed spaces with insufficient ventilation, 2. Crowded conditions with people, 3. Conversations in a short distance) to reduce the risks of cluster development. This approach seemed to have prevented the excess strain on the medical resource. However, the number of patients is increasing with the arrival of winter, and it is necessary to reconsider the system of healthcare delivery.

We reported a case in our hospital where COVID-19 infection was suspected during the treatment of gynecological tumors, and a change in treatment was required. Along with focusing on the control of COVID-19 infection, it is also essential to develop a new system to manage cancer patients in this pandemic. In Japan, the three oncology societies collaborated to disseminate medical policies for each type of cancer. Although the treatment options vary depending on the severity of the epidemic and local and institutional conditions, the following three points should be considered in principle; 1) Classify the cases into three categories: severe (life-threatening and urgent), moderate (significant delay is prognostic), and mild (postponement of treatment for some time or selection of another treatment does not significantly change the prognosis), and consider postponing or changing the treatment, (2) Consider choosing a treatment that requires minimal hospital visits or hospitalization if the treatment is equally effective, (3) Consider using telemedicine for follow-up and medication only. Here I will introduce the treatment policy for gynecological tumors in this session.

The spread of the COVID-19 epidemic has raised ethical, social, and medical issues that cancer specialists have never experienced before. There are several points that we must take into account from a holistic standpoint in order to adjust practice; the extent of the COVID-19 epidemic in the region, the hospital's safety system for its medical staff, occurrence of COVID-19 nosocomial infections, the medical resources devoted to COVID-19 patients, and the degree of malignancy and progression of each patient. Even during the COVID-19 epidemic, we have a responsibility to provide appropriate treatment to ensure cancer patients are minimally disadvantaged, and we are required to select the most appropriate treatment in balance with the care of COVID-19 patients.

Neerja Bhatla

Current Position:
PROFESSOR, DIVISION OF GYNAECOLOGIC ONCOLOGY,
DEPARTMENT OF OBSETRICS & GYNAECOLOGY,
ALL INDIA INSTITUTE OF MEDICAL SCIENCES,
NEW DELHI, INDIA

Education:
MBBS (AIIMS, NEW DELHI) - 1982
MD, OBSTETRICS & GYNAECOLOGY (AIIMS, NEW DELHI) – 1985
FICOG – 2000

Professional Experiences (Top 5):
FACULTY MEMBER AT AIIMS, NEW DELHI – SINCE 1989
CHAIRPERSON, FIGO GYNECOLOGIC ONCOLOGY COMMITTEE (2015-2018)
SECRETARY GENERAL, INTERNATIONAL FEDERATION OF CERVICAL PATHOLOGY & COLPOSCOPY (IFCPC) – 2017-21)
PRESIDENT, AOGIN (2014-16)
PRESIDENT, ASSOCIATION OF GYNAECOLOGIC ONCOLOGISTS OF INDIA (2014-15)

Practice in Gynecologic Oncology during COVID-19 pandemic in India

Neerja Bhatla

The COVID-19 pandemic has abruptly caused major changes in management of patients with gynecological malignancies in India. A complete national lockdown from end-March to May led to disruption in ongoing treatment as well as difficulty for new patients to access clinical care. Moreover, there was ever present concern regarding safety from Covid-19 infection for both the patients and the health personnel. In most hospitals, a significant proportion of the infrastructure and personnel were diverted for Covid care, leaving fewer hospital beds and operation theatres available for oncology care. The Association of Gynaecologic Oncologists of India brought out recommendations for prioritizing care during the pandemic, and several publications addressed the issue of acceptable waiting times for preventive and curative services. Cases with the highest probability of cure e.g., carcinoma cervix, germ cell tumours, were to be managed at the earliest priority; patients with slow-growing tumours with good tumour biology e.g., low-risk endometrial cancers could be advised hormonal therapy for 3-4 months, while high-risk endometrial cancers were advised surgical management within 4 weeks. Neoadjuvant chemotherapy (NACT) was a good option for management of epithelial ovarian cancer in this time, but ovarian cancers likely to be less responsive to chemotherapy were recommeded operation at the earliest. Patients already receiving external beam radiation therapy were to be provided brachytherapy at the earliest priority. Whenever possible hypofractionation schedules were encouraged. Surgeries for recurrent cases and risk-reducing preventive surgical therapies were accorded the lowest surgical priority; whenever possible, chemotherapy or radiotherapy options were considered for recurrence.

A number of online surveys have attempted to quantify the impact of the pandemic on the practice of gynecological oncology. An analysis of three surveys showed a decrease in the number of patients presenting; cessation of registration of new patients; delay in initiation of treatment. Routine surgical interventions decreased and only emergency surgeries were performed initially. Covid testing continues to be mandatory prior to surgery and the use of adequate personal protective equipment was ensured. In the initial phase of the pandemic, minimal access surgeries were at a halt but with growing evidence they have been resumed with precautions as recommended by international guidelines. Treatment was deferred In many patients, while many others were offered alternate non-surgical treatments, i.e., chemotherapy and radiotherapy. Advanced cases of cervical cancer received hypofractionation regimens more often. Early stage endometrial cancers were treated mostly by laparotomy. Many were found to have intraperitoneal spread of disease, normally an unusual finding. An increased number of cases were offered hormonal treatment while awaiting surgery. In ovarian cancer, there was a shift from primary cytoreduction to NACT. The number of cycles of NACT was often increased up to six cycles in many cases with interval debulking surgery being deferred. Telemedicine services were set up to provide pre- and postoperative guidance and reduce in-person hospital visits. Follow-up protocols were modified with most adopting a less frequent follow-up approach. To conclude, the pandemic has had a significant impact on oncology care, the full impact of which will be known later.

Suresh Kumarasamy

Current Position:
Consultant Gynaecological Oncologist, Gleneagles Hospital Penang, Malaysia
Adjunct Clinical Professor, Royal College of Surgeons in Ireland – University College Dublin Malaysia Campus

Education:
MBBS, University of Mysore, India (1984)
Masters in Obstetrics & Gynaecology, University of Malaya (1992)
Membership of the Royal College of Obstetricians & Gynaecologists, London (1992)
Fellowship in Gynacological Oncology, United Kingdom (1995)
Fellowship of the Royal College of Obstetricians & Gynaecologists, London (2009)
Fellowship of the Royal College of Physicians of Ireland Ad Eundem (2011)

Professional experiences (Top 5):
Council Member, Asian Society of Gynaecological Oncology
Member, Oncology Committee, Asia-Oceanic Federation of Obstetrics & Gynaecology
Chairman, Gynaecological Oncology Sub-committee, Obstetrical & Gynaecological Society of Malaysia
President, Obstetrical & Gynaecological Society of Malaysia (2012-2013),
Co-Founder, Asia Pacific HPV Coalition.

Practice in Gynecological Oncology during Covid-19 pandemic in Malaysia

Suresh Kumarasamy

Malaysia is a middle income country in South East Asia with a population of 32.7 million. The first case of Covid -19 in Malaysia was an imported case from Wuhan on 25th January 2020. The first Malaysian testing positive for Covid -19 was reported on 3rd February 2020. As of 22nd November 2020 there have been 54,755 confirmed cases of Covid-19, with 41,597 recoveries and 335 deaths. 12,843 patients are currently under treatment. It is the country's policy to hospitalize all individuals with a confirmed Covid-19 diagnosis in a government medical facility even if they are asymptomatic. There have been three waves of Covid-19 cases. The first wave ended successfully within less than 2 months. In early March 2020 a second wave occurred following a religious meeting attended by over 16,000 people. Malaysia is currently facing a third wave following a surge of cases in late September 2020.

Due to a rapid increase in positive cases and difficulty in tracing the contacts, the government of Malaysia imposed a nationwide Movement Control Order (MCO) from 18th March to 12th May 2020. During the MCO severe restrictions of movement were in place and only essential services were allowed. With an improvement in the situation a gradual easing of restrictions resulted in a Conditional Movement Control Order (CMCO) which allowed most businesses to open. This was followed by a Recovery Movement Control Order (RMCO) from 10th June 2020 with further easing of restrictions. A surge in cases during the third wave resulted in the government reverting to the CMCO in most states on 9th November 2020. This is currently due to run till 6th December 2020.

For the first two weeks of the MCO all elective surgery was cancelled and only emergency surgery was carried out. Subsequently, semi-elective surgery which included gynaecological cancer surgery was commenced. The Ministry of Health issued guidelines stating that essential gynaecological services for malignancy should continue without disruption while optimizing universal precautions. The directive also recommended screening and testing of patients prior to elective or semi-elective surgery.

Specific guidelines on how to manage individual gynaecological malignancies were not issued. Individual gynaecological oncologists modified international guidelines and recommendations depending on the circumstances in their respective hospitals and regions. In general there was minimal disruption in the administration of chemotherapy or radiotherapy. There was minimal disruption of surgery in non-covid hospitals. In hybrid hospitals (i.e. hospitals treating both covid and non covid patients) the amount of cancer surgery that was possible depended on the availability of hospital beds and operating time which was often reduced as well as the availability of ICU beds. The anaesthetic and gynaecological oncology teams would discuss and agree if surgery could proceed or if alternative treatments eg. neoadjuvant chemotherapy or radiotherapy would be the preferred option depending on the resources available at that point of time.

Non urgent follow up appointments were deferred when there were limitations in clinic space or of numbers of medical staff due to redeployment to covid wards or quarantine following exposure to covid positive individuals. In the state of Sabah which severely affected by Covid-19, accounting for 50% of the country's cases and 2/3 of the deaths, funds were provided by the government for surgery of public hospital patients to be carried out in private hospitals. Training of fellows in some hospitals was affected by less surgery being carried out as well as some fellows being temporarily deployed to help in the management of covid patients. The national HPV vaccination program was also disrupted when schools were closed.

Cheng-Chang Chang

Current Position:
Department Chairman/ Associate Professor of Obstetrics and Gynecology, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan.

Education:
Dr. Chang received his MD degree from the National Defense Medical Center of Taiwan in 1994, the Ph.D. degree from Postgraduate Institute of Medical Science, National Defense Medical Center of Taiwan in 2015. He serviced in the airborne troop as a military medical doctor (1994~1996). He was trained in Obstetrics and Gynecology since 1996 and Gynecologic Oncology (2006~2009) in Tri-Service General Hospital (TSGH), Taiwan, and became an accredited Gynecologic Oncologist in 2013.

Professional Experiences (Top 5):
1. In 2003, he went to Chattanooga Women Laser and Endoscopic Center, USA with Dr. C-Y Liu for the training of female pelvic floor reconstruction.
2. In 2004, he also moved to Sunnyvale, CA, USA for the training of da Vinci robotic surgery and completed the first robotic gynecologic surgery of Taiwan in 2005.
3. Dr. Chang's research focused on the molecular signatures approach to identify novel biomarkers and potential therapeutic targets in epithelial ovarian cancer.
4. He also interested in the clinical application of artificial intelligence in gynecological cancer evaluation and intrapartum cardiotocography.
5. On account of the COVID-19 pandemic, he has contributed to review the SARS-CoV-2 infection in the pregnancy and reproductive system.

Practice in gynecologic oncology during COVID-19 pandemic in Taiwan

Cheng-Chang Chang

The 2019 novel coronavirus (2019-nCoV, later named SARS-CoV-2) is a pandemic disease worldwide. Spreading of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) is continuing at a rapid speed. Till Nov 26, 2020, there have been 59,481,313 confirmed cases and 1,404,542 deaths globally. Taiwan is close to mainland China and was expected to have the second-highest number of cases of SARS-CoV-2 due to its proximity to and the number of flights between China. Taiwan's government learned from the 2003 SARS experience and established a public health response system for enabling rapid actions for the COVID-19. Till Nov 26, 2020, there have been 625 confirmed cases and 7 deaths. Understanding the action items (Border Control, Case Identification, and Containment) that were implemented quickly in Taiwan and assessing these actions' effectiveness in preventing a largescale epidemic may be instructive for other countries.

In our daily clinical practice, we can get a patient's travel history from the health insurance card. Any fever patients will be traced about travel, occupation, contact, and cluster history. The medical conference was converted to a virtual meeting.

1. Recommendations on the reduction of infection rate including identification of patients/ COVID-19 rapid screening test, depending on available resources, testing patients for treatment or surgery and based on clinical symptoms within two weeks, strict tracing of patients' contacts, establishing isolated areas for COVID patients, clean/COVID-19-free operating room for cancer surgery, work from home/separated teams to maintain the workforce, social distance, travel restrictions, frequent sterilization of areas which are touched frequently, limitation of family and friends visiting the hospital.
2. Recommendations for outpatient clinics: Adequate protection equipment, maintaining social distancing in outpatient waiting areas, minimize face-to-face appointments, telephone/video consultations.
3. Recommendations on inpatient management: Restricting the number of visitors to none or single-only and COVID designated wards/intensive care units/operating rooms. All surgery performed in the COVID-19 pandemic, irrespective of the known or suspected SARS-CoV-2 status of the patient, should be consider as high risk, and protection of the surgical team should be at the highest level.
4. Oncological treatment guidelines: In situations where capacity is severely limited, following the guidelines apply in chemotherapy. Prioritization for radiotherapy is based on principles similar to chemotherapy patients.

Many of the guidelines focus on limiting patient and staff interactions by limiting the number and length of clinical visits and limiting exposure.

Chia-Yen Huang

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MS National Taiwan University, Graduate Institute of Clinical Medicine, 2005-2007
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Professional Experiences (Top 5):
Gynecologic Oncology
Laparoscopic Surgery
Cancer Genetics
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Epidemiology

Novel Immunotherapy for Advanced Endometrial Cancer

Chia-Yen Huang

Endometrial cancer (EC) is the most common gynecologic cancer in developed countries including Taiwan. In Taiwan, it is the 6th most common cancer in women with nearly 2,700 newly diagnosed cases annually. The majority of EC is diagnosed at early stage with a good prognosis. However, approximately one-fourth of patients are diagnosed with advanced disease. Despite excellent outcomes in early stage disease, patients presenting with advanced stage or with aggressive histologic subtypes have a higher incidence of recurrence and subsequently shorter survival.

The standard treatment of advanced / metastatic or recurrent endometrial cancer is paclitaxel plus carboplatin. The response rate is about 40% to 62%, and OS is about 13 to 29 months. However, options for advanced disease after initial platinum–taxane therapy are scarce. Data from the Cancer Genome Atlas (TCGA) project have advanced our understanding of the biologic heterogeneity of endometrial cancer. This new knowledge has opened up more options for targeted therapy for recurrent disease.

Immunotherapy for endometrial cancer is an emerging area of research and treatment, especially for patients with advanced disease. Several immunotherapy related trials for metastatic / recurrent endometrial cancer are ongoing. At present, there is only one US FDA-approved immunotherapy for the treatment of uterine cancer. FDA granted accelerated approval to pembrolizumab plus lenvatinib for the treatment of patients with advanced endometrial carcinoma that is not microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR) and who have disease progression following prior systemic therapy but are not candidates for curative surgery or radiation.

In a single-arm, phase 2 trial, the objective response rate was 38% at 24 weeks among unselected patients with recurrent endometrial cancer, and among the patients with a response, 64.5% had a response that lasted for at least 12 months. Responses occurred in patients who had tumors without high MSI and in patients with uterine serous cancers. Based on the results, a randomized phase 3 trial of lenvatinib plus pembrolizumab versus doxorubicin or paclitaxel in patients with advanced endometrial cancer is ongoing (NCT03517449).

Se-Ik Kim

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2017.3-	Ph.D. course, Seoul National University Graduate School

Professional Experiences (Top 5):
Institutional Training

2009.3-2010.2	Internship, Seoul National University Hospital, Seoul National University College of Medicine
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2017.5-2020.9	Fellowship, Division of Gynecologic Oncology, Dept. of Obstetrics and Gynecology, Seoul National University Hospital

Publications

Proteomic Discovery of Biomarkers to Predict Prognosis of High-Grade Serous Ovarian Carcinoma
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Update on cervical cancer surgery- abdominal or minimally invasive approach

Se-Ik Kim

For early-stage cervical cancer, radical hysterectomy (RH) with bilateral pelvic lymph node dissection is recommended. RH accompanied by adjuvant treatment is also a recommended treatment option for bulky tumors in stage IB2 or IIA2. In the era of minimally invasive surgery (MIS), RH was commonly performed by laparoscopic surgery or robot-assisted surgery, both supported by evidence of oncologic safety in real-world clinical practice.

However, a recent phase III randomized controlled trial (RCT) in patients with early-stage cervical cancer, named as the "Laparoscopic Approach to Carcinoma of the Cervix (LACC) trial," brought unexpected, discouraging results. Ramirez et al. reported that MIS for RH had higher recurrence rates and worse overall survival compared to open surgery among women with FIGO stage IA1 (lymphovascular invasion) to IB1 cervical cancer. We recognize that there are some controversies surrounding the LACC trial. Nevertheless, we are living in the post-LACC trial era. As the solitary level 1 evidence, the LACC trial has already significantly influenced real-world clinical practice.

Then, how can we adapt to the change and what should we do in the post-LACC trial era? First, before rejecting all MIS RH and its accompanying benefits, we have to investigate robust scientific evidence from additional RCTs elucidating the exact effect of MIS on survival outcomes in early-stage cervical cancer. Confirmation studies that consider the medical circumstances of different countries are warranted. In addition, well-conducted retrospective studies may also provide valuable findings reflecting real-world clinical practice. Second, optimal candidates for MIS RH should be elucidated. After the LACC trial, some retrospective studies have focused on to identify specific patients for whom MIS might entail an especially low risk. Third, development of surgical techniques to prevent tumor spillage during MIS RH is necessary. Dissemination from the use of a uterine manipulator, exacerbated by the intracorporeal colpotomy should be avoided. Lastly, gynecologic oncologists should be aware of the LACC trial and up-to-date knowledge on MIS RH for early-stage cervical cancer. The results of the LACC trial, together with their own institutional data, should be discussed with patients before choosing MIS RH.

In conclusion, in order to survive in the post-LACC trial era, we have to keep an accurate insight and build robust evidences on MIS RH for treatment of early-stage cervical cancer. Advantages of MIS RH should not be given up at all just because of the negative results from the LACC trial. We hope that MIS RH continue to be implemented, rather than decay, through the delicate patient selection as well as careful surgical techniques.

Pao-Ling Torng

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Education:

1983 ~ 1990	National Taiwan University, College of medicine, M.D.
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Professional Experiences (Top 5):

July 1996 ~ present	Attending Physician, Department of Obstetrics & Gynecology, National Taiwan University Hospital
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2014 ~ present	Councilor Taiwan Association of Gynecologic Oncologist (TAGO)
2014 ~ present	Executive Editor Gynecology and Minimally Invasive Therapy (GMIT)
2015 ~ present	Councilor Taiwan Robotic Surgery Association (TRSA)
2016 ~ present	Councilor Taiwan Endometriosis Society (TES)

Update on treatment of metastatic or relapsed cervical cancer

Pao-Ling Torng

Patients with metastatic, recurrent, or persistent cervical cancer not amenable by surgery or radiotherapy have a very poor prognosis, and their 5-year overall survival (OS) rates range from 5% to 16%. Several phase II trials of different cisplatin (CDDP)-based doublets and a phase III randomized trial showing a trend in response rate, progression-free survival, and OS in favor of CDDP + paclitaxel (PTX) compared with other CDDP-based doublets. A phase III randomized trial, GOG 240, demonstrated a further significant improvement in overall survival when bevacizumab was incorporated to chemotherapy: with a median overall survival (16.8 months) and progression-free survival (8.2 months). The FDA has recently approved pembrolizumab for patients with recurrent or metastatic cervical cancer in progression on or after chemotherapy whose tumors were PD-L1 positive. Interesting clinical researches on the use of immune checkpoint inhibitors in addition to chemotherapy, and possibly with radiotherapy that could activate the anti-tumor immunity (called as ascopal effect) are still at the basic research phase, but promising.

Takayuki Enomoto

Academic Positions:
Professor and Chairman, Department of Obstetrics and Gynecology, Niigata University Graduate School of Medical and Dental Science,
Specialty:
Gynecologic Oncology, Gynecologic Pathology
Certifications:
Gynecologic Oncology, Clinical Cytology,

Professional Training and Employment

1983	Resident in Department of Obstetrics and Gynecology, Osaka University Hospital
1986-1991	Visiting Fellow and Guest Researcher in Laboratory of Comparative Carcinogenesis, National Cancer Institute, Frederick Cancer Research and Development Center, Frederick, MD 21701 , U.S.A
1991-1994	Clinical Fellow in Department of Obstetrics and Gynecology, Osaka University Hospital
1999-2002	Assistant Professor in Department of Obstetrics and Gynecology, Osaka University Faculty of Medicine
2002-2007	Associate Professor, Department of Obstetrics and Gynecology, Osaka University Graduate School of Medicine
2008-2012	Professor, Department of Obstetrics and Gynecology, Osaka University Hospital
2012-present	Professor and Chairman, Department of Obstetrics and Gynecology, Niigata University Graduate School of Medical and Dental Science

Professional Memberships
Corresponding Member, American Association for Cancer Research
Active Member, American Society for Clinical Oncology
Active Member, Society of Gynecologic Oncology
Active Member, International Society for Gynecologic Cancer
President, Japanese Gynecologic Oncology Group
Executive Board Member, Japanese Society of Obstetrics and Gynecology
Executive Board Member, Japanese Society of Gynecologic Oncology
Executive Board Member, Japanese Society for Clinical Cytology
Board Member, Japanese Society of Gynecological Cancer Screening
Congress President of the 4th Japan HBOC consortium, 2016
Congress President of the 14th Japan Gynecologic Cancer Meeting, 2017
Congress President of the 61st Annual JSGO Meeting, 2019
Congress President of the 29th Japanese Society of Gynecological Cancer Screening, 2020
Congress President of the 73rd JSOG Meeting, 2021

Clinical Trial Groups
President, Japanese Gynecologic Oncology Group
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NRG-Oncology
Gynecologic Cancer InterGroup

Radical trachelectomy for early stage cervical cancer at 15-17 weeks of gestation

Takayuki Enomoto

INTRODUCTION

Standard treatment of early stage cervical cancer diagnosed during pregnancy has been radical hysterectomy accompanied by immediate termination of the pregnancy. However, management in women who desire to retain their pregnancy remains a significant challenge, from both oncological and obstetrical standpoints. One commonly used option is to delay the primary treatment of the cancer until the fetus can survive ex utero without significant morbidity. Unfortunately, a delay of treatment may cause undue maternal risk. The second option is to conduct neo-adjuvant chemotherapy during the pregnancy so that the cancer can be treated without delay. There is a justified concern, however, that exposure of the fetus to platinum-based chemotherapy in utero may increase its risk for future cancer. Recently, radical trachelectomy (RT) has been described as a potential option in cervical cancer patients who have a strong desire to continue their pregnancy and yet still treat the disease without delay.

RESULTS

Abdominal radical trachelectomy was successfully performed for eight cases of stage 1B1 cervical carcinoma at 15-17 weeks of gestation (under written informed consent). Planned cesarean section was performed, at 37 weeks of gestation in 3 cases, and at 30 weeks of gestation in one case, and 33 weeks gestation 2 cases. Emergent cesarean section at 33 weeks of gestation, due to intrauterine infection, was performed in one case. Continuation to full term pregnancy was planned in one case.

General anesthesia with propofol made manipulation of the gravid uterus easier than with the general anesthesia sevoflurane, which made the gravid uterus too relaxed to lift up. Precise procedure will be shown by video.

CONCLUSION

Our present study, together with previously published data, suggests that abdominal radical trachelectomy for early stage cervical cancer at 15-17 weeks of gestation may have high utility options for women who strongly desire to have the baby.

Wu-Chou Lin

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Board member, Taiwan Association for Minimally Invasive Gyn. (TAMIG)
Board member of Formosa Urogynecology Association (FUGA)

Education:
1978~1985 Medical degree, China Medical University (CMU)
1998~2000 Master of Medicine, School of Medicine, CMU.
2003~2012 Ph.D. of Medicine, School of Chinese Medicine, CMU.

Professional Experiences (Top 5):
Gynecological oncology
Gynecological endoscopic and minimally invasive surgery
Urogynecology, urinary & fecal incontinence
Trans-sexual and pelvic reconstruction

Anatomic dissection in nerve-sparing radical hysterectomy for early cervical cancer

Wu-Chou Lin

Pelvic lymphadenectomy had been standardized in the procedure of radical hysterectomy, and so dose the laparoscopic radical hysterectomy [angel 2008]. Our pelvic lymphadenectomy initiated at the level of 2cm above the bifurcation of the common iliac artery. By following the external common iliac artery pathway the lymphadenectomy extend to the inguinal canal where the external iliac entered. Around the pubic ramus, we track the obturator artery upward to internal common iliac than back to the common iliac artery. This clockwise (left side; counterclockwise for right side) method of lymphadenectomy then enable us to exposed the bifurcation of the common iliac artery; the external iliac artery and vein; the psoas muscle; the genitofemoral nerve; the obliterated umbilical artery (superior vesical artery); the obturator vein, artery, and nerve. At this level, the para-vesical space then can be dissected by removing the adipose tissue filling this virtual space until the internal obturator muscle is exposed with the endopelvic fascia is at the bottom. The dissection enable us to identify the uterine artery, vesicle artery, and even the deep uterine vein. The next step we go on and start to prepare the pararectal space by identifying obliterated umbilical artery on the lateral side; ureter on the medial side; and uterine artery on the anterior side. By dissecting the soft tissue around this space downward to pelvic floor, partial sympathetic track will be seen on the nine o'clock position of the rectal wall. During this procedure we should be cautious of small artery branches from internal iliac to rectal sidewall. The dissection is suspend when there are no small artery branches seen. At this level we can clearly see the vascular part of cardial ligment at the anterior; the sympathetic nerve on the lateral side of rectum, and also the parasympathetic nerve coming from S2-S4. By traction on the obliterated umbilicus artery to the lateral side, we then are able to dissect along the ureter to free the ureter. Until the cross-section of uterine artery and ureter are met, the ureteral branch from uterine artery and be found right at this section. Indentified this branch and careful ligation can avoid unnecessary bleeding which cause difficulties in the laparoscopic surgery and also identify the sure mark of the ureter tunnel entrance. The uterine artery at this point can be sectioned follow by round ligament and broad ligament dissection from the anterior face of the uterus until exposure of the anterior vaginal fascia up to 3 to 4cm of the cervix. This dissection allows the end of the ureter tunnel (ureter entrance in the trigone) to be identified. The ureter tunnel is a circle in the form of a dense connective tissue, which is enclosed by superior vesicle artery as superior part, and middle vesicle artery as inferior part. The medial side of the ureter tunnel is enhanced by the vesico-uterine ligaments, which is constitute of vessels from the posterior face of the bladder to the anterior vaginal

fascia. Ligation of the vesco-uterine ligaments frees the bladder and ureter from anterior face of vagina. Ligation then continues with the superior vesicle artery as termination of the opening of the ureter tunnel anterior part. The posterior part of the ureter tunnel is opened simply by ligation of the middle vesicle artery. As the dissection of the ureter tunnel is complete, we can see the pelvic nerve plexus going from vagina sidewall upward towards bladder, which we are intent to preserve. Also by this step, we had successfully push away the bladder and ureter from anterior face of vagina and surgery zone. After the ureter tunnel dissection, the vascular part of the cardial ligament can be clearly identified, which include the vesicle artery, vaginal artery, and the deep uterine artery. These vessels then are individual sectioned close to the lateral pelvic wall with cautions. By clamping on the remained of the cardial ligament upward, carefully dissect the distal end of vessels along the lateral wall of vagina. The pelvic plexus formed by sympathetic nerve coming from hypogastric nerve and parasympathetic nerve from S2 to S4 is clearly exposed with its signature cross sign. Where as the pelvic plexus marked the crossing point; superiorly innervation to the bladder and vagina; inferiorly innervation to the rectum; and upward arm innervation to the uterus. The only nerve route need to be dissected is the upward arm, which innervate the uterus. This method we can be sure that most of the other never innervation towards bladder, vagina and rectum is preserved. The dissected cut out of the cross arm leaving it the signature "T" sign. The uterosacral ligament originates in the wall of the sacrum and extends forward to fuse with the posterior vaginal fascia on both sides of the uterus. In order to approach the uterosacral ligament, the Douglas pouch between the two pararectal ligaments need to be opened. The external side of the uterosacral ligaments contained the inferior pelvic plexus witch we need to preserve also. Therefore, with tension traction and careful dissection, the uterosacral ligaments can be divided into an internal leaf and an external left. Then the internal leaf is sectioned to the proximal end. After all the steps, the uterus with up to 2cm of vagina is free to removed as in the traditional radical hysterectomy, however with nerves innervating bladder, vagina, and rectum preserved.

Ting-Chang Chang

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1990-1991, Master of Public Health, Harvard School of Public Health, Boston, Massachusetts, U.S.A.
1990-1991, Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, Brigham and Women's Hospital and New England Trophoblastic Disease Center, Boston, Massachusetts, U.S.A.

Professional Experiences (Top 5):

Vice President, Asian Gynecologic Oncology Group, 2016 - present
Executive Board, Taiwan Precision Medicine Society, August 2019 – present
President, Taiwan Precision Medicine Society, August 2015 – July 2019
Executive Board, Taiwan Association of Obstetrics and Gynecology, October 2013 – present
Executive Board, Taiwan Association of Gynecologic Oncologists, 2004 – present

Molecular characterization and its clinical implication in endometrial cancer

Ting-Chang Chang

Between January 2009 and December 2013, a total of 689 endometrial cancer patients was diagnosed at Chang Gung Memorial Hospital Linkou Medical Center. 397 cases who fulfilled (1) endometrioid adenocarcinoma histology, (2) tumor dimension in the paraffin embedded block was equal to or exceeded 10 mm x 10 mm, (3) treated at this institute with complete record, and (4) regularly followed for at least five years, were retrieved. Their basic characteristics were listed in Table 1.

The median tumor dimension measured 35 mm, with the largest one measured 92 mm in length. All the 397 cases were endometrioid carcinoma histologically. Among these, 183 of 397 (46.1%) were classified as grade 1 in histology, 148 grade 2 and 62 grade 3. The other 4 cases were not mentioned in the histological report.

Thirty-nine (39) cases had their disease relapsed during follow-up period. Among these, 5 cases encountered local relapse, one with entrance (trocar) site relapse, 8 with regional site relapse other with no lymph node involvement, 3 with regional lymph node recurrence only, one had both regional node and regional site relapse. 22 cases had their first relapse at distant sites, including 7 cases showed lung relapse, 3 with abdominal (intraperitoneal relapse) out of the pelvis, one with distant bone relapse, the others showed multiple relapse sites involving distant locations. Nine cases showed persistent disease after their primary therapy.

POLE mutation was noted in 44 (11.1%) of the study cases while mutated exon 9 was noted in 25 cases, mutated exon 13 in 15 cases, mutated 14 in 5 cases and mutated 11 in one case. Exon 10 mutation was not observed in our study cases. All the noted mutations were missense mutation.

The mean and medial age of POLE mutated patients were 56.1 years and 55 years, comparing with 52.7 and 53 years in patients with POLE unmutated (wild type) tumor (p = 0.031). FIGO grade, FIGO stage, clinical and pathological lymph node status, primary therapy and type of recurrence were not statistically significant between the two groups. Among the 44 mutated, one patient had local recurrence 6.3 months after primary diagnosis of a FIGO IA disease, another one had multiple distant recurrence 25.4 months after diagnosis of a FIGO 3C2 disease. Both were survived after treatment for recurrence. The other one was a 79 years woman who showed an IVA disease with an 8 cm tumor at diagnosis and had never experienced disease free after diagnosis. The patient received surgery and chemotherapy and died of disease 14 months after initial diagnosis as the only patient with POLE mutated endometria cancer who died of disease. It suggests that under current management of endometrioid endometrial cancer, patient with somatic POLE mutated tumor showed a tendency of better survival than those with no POLE mutation.

We then extended our study to define the other molecular markers among these patients, focused on the immunohistochemical expression of miss-match repair deficiency, estrogen receptor, progesterone receptor and p53 status. The interaction of these markers and clinical significance is to present at the meeting.

Sang-Wun Kim

Current Position:
Sep. 2020 ~ present: Vice Director of Yonsei Cancer Center, YUMC
Sep. 2019 ~ present: Director of Institute of Women's Life Medical Science, YUMC
Mar. 2017 ~ present: Director of Women's Cancer Center, Yonsei Cancer Center
Mar. 2016 – present: Professor.
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Professional Experiences (Top 5):
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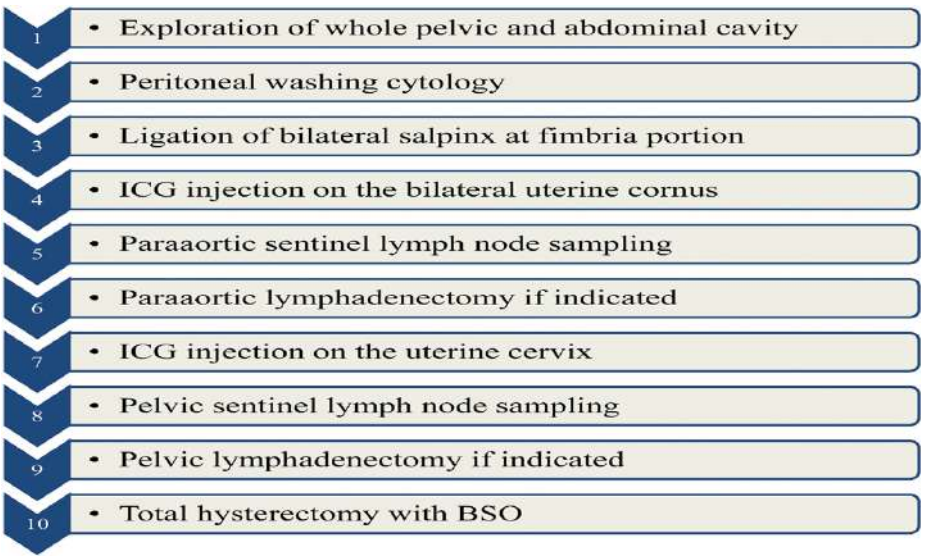
Sanford-Burnham Medical Research Institute, San Diego, CA, USA
Korean Society of Obstetrics and Gynecology – Secretary general (2009-2011,10)
American Association of Cancer Research (AACR) – Active member (2014 – present)
Korean Cancer Association – member (2005-present)
Korean Society of Gynecologic Oncology and Colposcopy – member (2005-present)
Korean Society of Gynecologic Endoscopy and Minimally Invasive Surgery – member (2005-present)

Two-step sentinel lymph node mapping strategy in endometrial cancer staging

Sang-Wun Kim

Background: Fluorescence image-guided sentinel lymph node (SLN) biopsy using two-step mapping technique incorporated sequential injection of indocyanine green (ICG) into bilateral cornu of uterus followed by cervical injection. Clinical outcome was compared to that of conventional cervical method (one-step). **Methods:** Patients with FIGO stage I-III endometrial cancer who underwent laparoscopic or robotic staging operation including SLN biopsy followed by lymphadenectomy from May 2014 to December 2018 were retrospectively reviewed. Patient characteristics, preoperative imaging, SLN detection pattern, pathological result, adjuvant treatment, and recurrence locations were analyzed.
Results: A total of 199 patients received one-step (n=123) and two-step (n=76) SLN biopsy. Paraaortic SLNs were more frequently identified in the two-step group. Lower and upper paraaortic SLNs were identified in 67.1% and 38.2%, respectively, in the two-step group and in 18.7% and 5.7% in the one-step group ($p < 0.001$). The number of paraaortic SLNs harvested was superior in the two-step group ($p < 0.001$). Moreover, trend of a higher proportion of patients with metastatic paraaortic SLN was shown in the two-step group (7.9%) than in the one-step group (1.6%) ($p = 0.056$). The metastatic paraaortic SLNs were found in 7.9% of the two-step group and 2.4% of the one-step group. In detecting LN metastasis, sensitivities of the one- and two-step methods were 91.7% and 100.0%, negative predictive values were 99.0% and 100.0%, false negative rates were 8.3% and 0%, and accuracy were 99.1% and 100.0%, respectively. The one-step methods identified only 3 out of 8 paraaortic LN metastasis and missed 5 paraaortic LN metastasis. However, there was no missed paraaortic LN metastasis in two-step group. Recurrence was observed in two patients (2.6%; one vaginal vault and one adrenal gland) in the two-step and seven patients (5.7%) including three nodal recurrences in the one-step method. **Discussion:** Two-step SLN mapping improved paraaortic SLN detection rate, a known pitfall of the conventional cervical injection. Proper evaluation of aortic lymph node status will assist in the tailoring of adjuvant therapy and prevent under-treatment of patients with isolated paraaortic metastasis.



Kimio Ushijima

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1983 M.D. Kurume University School of Medicine, Kurume, Japan
1990 Ph.D. Kurume University School of Medicine, Kurume, Japan

Professional Experiences (Top 5):
1992-1999 Senior stuff, Department of OBGYN, Kurume University School of Medicine
2000-2004 Assistant Professor, Kurume University
2004-2014 Associate Professor, Kurume University
May 2014~ Professor and Chairman, Department of OB&GYN, Kurume University School of Medicine

Adjuvant therapy for early endometrial cancer – when and how and why?

Kimio Ushijima

The risk factors for recurrence of endometrial cancer (EC) is decided by pathological specimen after staging surgery. If patients has some risk factors, such as deep myometrial invasion, lymphovascular space invasion, adjuvant therapy is conducted even in early stage cases (stage I and II). In high grade carcinoma, histologic type itself would be a risk factor. Especially, the diagnosis of uterine serous carcinoma would be a significant poor prognostic factor even in less myometrial invasion. MELF (Microcystic Elongated and Fragmented) pattern would be a new pathologic risk factor.

As the strategy of adjuvant therapy for EC patients with intermediate risk factors, radiation therapy (RT) is a standard treatment, and chemotherapy (CT) is applied for only for the advanced cases in western countries including most Asian countries. On the other hand, systemic CT has been done for most patients as an adjuvant therapy in Japan since 1990's. There may be some possible reasons for this trend. In Japan, gynecologic cancer patients are treated not only by high volume center. Although, there were so many advanced cervical cancer patients, fine radiation facilities were not arranged enough and less number of radio oncologist. So there were less room for EC patients. Japanese gynecologist are familiar with CT, especially platinum agents in ovarian cancer treatment. So without definite evidence, the trend were sifted to CT.

First evidence of CT is JGOG 2033 trial. CT showed slightly longer survival than RT in intermediate high risk patients. The choice of drugs are cyclophosphamide, doxorubicin, and cis-platin (CAP), then doxorubicin plus cis-platin (AP), now the dominant combination is paclitaxel and carboplatin (TC). JGOG 2043 is a prospective randomized control study to seek the best combination among AP, TC, and docetaxel and cis-platin (DP) including advanced stage patient. There was no significant difference of survivals between these three regimens.

It is difficult to answer which is the better strategy RT or CT as the adjuvant therapy for early stage EC with intermediate risk factors. Nevertheless, EC has different biological feature from cervical cancer, and has similar feature as ovarian cancer. CT has only temporary toxicity, or does not increase local recurrence rate or show worse survival. Therefore, CT may be a reasonable treatment strategy even in early endometrial cancer.

Hee-Seung Kim

Current Position:
Associate Professor
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Education:

1. 1996-1998 Premedical School, Seoul National University
2. 1998-2002 Bachelor, Seoul National University College of Medicine
3. 2009-2011 Master, Seoul National University College of Medicine
4. 2013-2017 Doctor, Seoul National University College of Medicine

Professional Experiences (Top 5):

1. Mar 2003-Feb 2007 Resident at Department of Obstetrics and Gynecology in Seoul National University Hospital
2. Mar 2007-Aug 2009 Fellowship at Department of Obstetrics and Gynecology in Seoul National University Hospital
3. Sep 2009-Sep 2014 Commissioned professor at Department of Obstetrics and Gynecology in Seoul National University Hospital
4. Sep 2015-Aug 2016 Clinical assistant professor at Department of Obstetrics and Gynecology in Seoul National University Hospital
5. Sep 2016 -Associated professor at Department of Obstetrics and Gynecology in Seoul National University College of Medicine

Treatment for stage 4 and metastatic endometrial cancer

Hee-Seung Kim

Treatment option is limited for stage 4 and metastatic endometrial cancer because of extent of metastasis and aggressive feature of tumor biology. Thus, it is no longer difficult to apply the combination of surgery, radiotherapy and chemotherapy effectively and properly for the disease. In this review, we will introduce the role of each treatment for improving prognosis of stage 4 or metastatic endometrial cancer.

In terms of surgery, many studies have shown that aggressive and debulking surgery may be helpful in improving survival in patients with advanced or recurrent endometrial cancer, suggesting optimal cytoreduction as a favorable prognostic factor. However, the role neoadjuvant chemotherapy is controversial for advanced endometrial cancer contrary to ovarian cancer due to a lack of evidence.

Especially, the regimen of the first-line chemotherapy has been established as the combination of paclitaxel-carboplatin through GOG-0209 and JGOG-2043. Moreover, addition of trastuzumab to paclitaxel-carboplatin has been shown to improve survival in patients with advanced or recurrent endometrial cancer who had HER-2/neu expression. Although bevacizumab showed the potential to treat recurrent endometrial cancer, the combination to the chemotherapeutic regimen failed to improve survival in those with advanced or recurrent endometrial cancer.

Recently, different types of immune checkpoint inhibitors are being investigated as monotherapy or combination therapy with targeted agents for advanced or recurrent endometrial cancer. When we consider the effect of immune checkpoint inhibitors may be maximal for patients with advanced or recurrent endometrial cancer in whom mismatch repair genes are deficient or the expression of PD-1/PD-L1 is positive, precision medicine using immune checkpoint inhibitors will be the next strategy for treating advanced or recurrent endometrial cancer in the near future.

Masaki Mandai

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Professional Experiences (Top 5):
2000-2002 Research fellow, Vaccine Research Center, NIH, US
2013-2017 Prof. & Chairmen, Kindai University Faculty of Medicine, Osaka

Ovarian cancer surgery- 1st and 2nd debulking operation

Masaki Mandai

Recently, there published results of several important researches on the surgery for ovarian cancer.

First, in LION study (NCT00712218), the benefit of systematic pelvic and paraaortic lymphadenectomy in the surgical treatment of patients with advanced ovarian cancer who had undergone macroscopically complete resection and had normal lymph nodes both before and during surgery has been evaluated by randomly assigned to either undergo or not undergo lymphadenectomy. Among patients who underwent lymphadenectomy, the median number of removed nodes was 57. The median overall survival or median progression-free survival was not significantly different between the groups, suggesting lymphadenectomy in these patients have no benefit but associated with increased postoperative complications. I will discuss on the role of LN dissection in primary debulking surgery for OC.

Second, the role of secondary cytoreductive surgery in recurrent ovarian cancer (ROC) has been evaluated in 2 large RCT. The result of GOG-0213 (NCT00565851) has been published. In this study, patients with platinum-sensitive ROC with investigator-determined resectable disease were randomized to undergo secondary surgical cytoreduction and then receive platinum-based chemotherapy or to receive platinum-based chemotherapy alone. Adjuvant chemotherapy and use of bevacizumab were at the discretion of the investigator. Complete gross resection was achieved in 67% of the patients assigned to surgery. Platinum-based chemotherapy with bevacizumab followed by bevacizumab maintenance was administered to 84% of the patients overall and was equally distributed between the two groups. The hazard ratio for death (surgery vs. no surgery) was 1.29 (95% confidence interval [CI], 0.97 to 1.72; P=0.08), which corresponded to a median overall survival of 50.6 months and 64.7 months, respectively, indicating that surgery does not result in longer overall survival than chemotherapy alone. Also, the final result of AGO DESKTOP III study (NCT01166737) was presented in ASCO 2020. In this study, Pts with platinum-sensitive ROC with a positive AGO-score were randomized to second-line chemotherapy alone vs. cytoreductive surgery followed by the same chemotherapy. A complete resection was achieved in 75% in surgery group. Primary endpoint analysis showed median OS of 53.7 mos with and 46.2 mos without surgery (HR 0.76, 95%CI 0.59-0.97, *p*=0.03), demonstrating a meaningful survival benefit of surgery in ROC. Discussion will be made for these 2 contradictory results.

The role of neo-adjuvant chemotherapy (NAC) has continuously been evaluated in several trials. EORTC55971 and CHORUS studies have already demonstrated noninferiority of NAC, and recently, final result of new trial to compare between primary debulking surgery (PDS) and NAC for stage III/IV OC has been published from Japan (JCOG0602, UMIN000000523). HR of OS for NAC was 1.052 [90·8% CI 0835-1.326], and one-sided noninferiority p-value was 0.24. Complete resection was achieved in 12% (17/147) of PDS and 31% (45/147) of PDS ± IDS in the PDS arm and in 64% (83/130) of IDS in the NAC arm, and the noninferiority of NACT was not confirmed, suggesting that NAC may not always be a substitute for PDS.

These conflicting results of PIII RCT showed some difficulty to evaluate the role of surgery in RCT. Also they suggest that the result may be affected by the use of new drugs or the extent of surgery. Personalization rather than standardization in surgical treatment would be another important issue.

Ka-Yu Tse

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MBBS (The University of Hong Kong)
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Professional Experiences (Top 5):
1. Debulking surgery in ovarian cancer
2. Robot-assisted surgery in gynaecological cancer
3. Chemotherapy in gynaecological cancer
4. Targeted therapy and immunotherapy in gynaecological cancer
5. Basic science research

Personalized medicine – maintenance therapy in ovarian cancer

Ka-Yu Tse

Ovarian cancer is the eighth commonest of cancer deaths among women in the world. The gold standard treatment for advanced diseases has been surgery and platinum-based chemotherapy since late 1970s. However it remains a lethal disease. More than half of the patients with advanced ovarian cancer recur and about 25% are resistant to platinum at first relapse.

With more understanding in cancer biology and advance in molecular techology, many cancers are now treated based on their genetic profiles instead of their anatomic origin. According to the National Cancer Institute (NCI), the definition of precision medicine is 'an approach to patient care that allows doctors to select treatments that are most likely to help patients based on a genetic understanding of their disease.' This is the reason that precision medicine is also called 'personalised medicine'.

Precision medicine is playing a more and more important role in ovarian cancer. The most successful example is poly-ADP-ribose polymerase inhibitors (PARPi), which patients with BRCA 1 or 2 mutation or homologous repair deficiency would benefit most from the treatment in either frontline line or recurrent setting. However, there are still pitfalls in the diagnosis, and the resistance mechanisms to PARPi still need to be elucidated. In 2017 the US Food and Drug Adminstration (FDA) also approved the use of pembrolizumab in patients with DNA mismatch repair deficiency, which was the first ever personalized immunotherapy that was approved based on molecular changes. In this lecture, the current status of precision medicine in ovarian cancer, the methods of guiding this approach and the challenges, will be discussed.

Heng-Cheng Hsu

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Professional Experiences (Top 5):
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Treatment for relapsed ovarian cancer

Heng-Cheng Hsu

Most patients with advanced epithelial ovarian cancer will develop recurrence of disease. The response of the patients who recur depend on the platinum-free interval (PFI). The Longer the PFI, the more likely that the patients respond to further treatment. For those with a PFI of 5-12 months, 30% might respond to retreatment with platinum. For those that have a PFS >24 months, 60-70% might respond. Also, subsequent responses to chemotherapy are mostly shorter compared to that from the previous response. In the end, despite advancement of treatment in epithelial ovarian cancer, patients still encounter chemoresistance which leads to fatality. Treatment with those with refractory/resistance is still challenging. Here we review the management of treatment in relapsed ovarian cancer.

Yi-Jen Chen

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Professional Experiences (Top 5):

1. Tsai HW, Huang MT, Wang PH, Huang BS, **Chen YJ***, Hsieh SL. DcR3 promotes cell adhesion and enhances endometriosis development. J Pathol. 2018 Feb;244(2):189-202. (SCI: 6.021 , Pathology)
2. **Chen YJ***. Huang BS, Teh-Fu Hsu TF, Tsai HW, Chang YH, Wang PH, Postoperative maintenance levonorgestrel-releasing intrauterine system and endometrioma recurrence. A randomized controlled study. Am J Obstet Gynecol. 2017 Jun;216(6):582. e1-582.e9. (SCI: 6.502, OBS & GYN)
3. Huang TS, **Chen YJ***, Chou TY, Chen CY, Li HY, Huang BS, Tsai HW, Lan HY, Chang CH, Twu NF, Yen MS, Wang PH, Chao KC, Lee CC, Yang MH*. Estrogen-induced angiogenesis promotes adenomyosis by activating the Slug-VEGF axis in endometrial epithelial cells. J Cell Mol Med. 2014.18(7):1358-71 (same contribution with correspondence)
4. **Chen YJ**, Wang PH, Ocampo EJ, Twu NF, Yen MS, Chao KC. Single-port compared with conventional laparoscopic-assisted vaginal hysterectomy: a randomized controlled trial. Obstet Gynecol. 2011 Apr;117(4):906-12. (SCI: 5.524, OBS & GYN)
5. **Chen YJ**, Li HY, Huang CH, Twu NF, Yen MS, Wang PH, Chou TY, Liu YN, Chao KC,Yang MH. Oestrogen-induced epithelial-mesenchymal transition of endometrial epithelial cells contributes to the development of adenomyosis. J Pathol. 2010 Nov;222(3):261-70. (SCI: 6.021 , Pathology)

Current role of minimally invasive surgery for ovarian cancer

Yi-Jen Chen

According to the NCCN Guidelines 2020, Debulking surgery is the initial treatment recommendation for patients with clinical stage II, III, or IV disease. Although debulking surgery is the standard of care, this recommendation is based on retrospective data. In general, the procedures should be part of the surgical management of patients with ovarian, Fallopian tube, or primary peritoneal cancer in an effort to fully stage patients and to achieve maximal debulking to less than 1-cm residual disease or resection of all visible disease in appropriate circumstances. Surgical debulking is optimal if the residual tumor nodules are less than 1 cm in maximum diameter or thickness; the goal is resection to R0. Extensive resection of upper abdominal metastases is recommended for patients who can tolerate this surgery.

In select patients, minimally invasive procedures may be used to assess whether debulking surgery is feasible. A recent trial assessed whether laparoscopy can be used to determine if debulking surgery will be futile (because patients actually have disease that cannot be optimally debulked to less than 1 cm). A maximal effort should be made to remove all gross disease, because the more complete the debulking the better the outcomes. The surgical guidelines emphasize that an open laparotomy should be used for patients with suspected malignant ovarian cancer if the treatment plan involves surgical staging, primary debulking, interval debulking, or secondary debulking surgery. The surgical guidelines also state that if patients cannot be optimally debulked using minimally invasive techniques, they should be converted to an open procedure. Neoadjuvant therapy can be considered if maximal debulking cannot be achieved .

Cheng-I Liao

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Professional Experiences (Top 5):
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2. Subspecialty Certification of Gynecologic Oncology
3. Assistant Professor

Big data analysis in populational gynecologic oncology- methods and outcomes

Cheng-I Liao

We collected data by different way to solve the different problems since our ancient ancestors. As technology advances, the speed and sophistication of data collection has increased dramatically, resulting in an unimaginable increase in the amount of data. Different special occupations began to use data to predict market demand and improve their service quality. In the medical industry, we are also expanding our data-related services within this trend.

Cancer threatened human life. We treat our patients according the clinical trials. But less than 5% of the cancer population was included in trials. It does not make sense. Hence, the United States began the Surveillance, Epidemiology, and End Results (SEER) program since 1973, using detailed cancer registration data and statistical analysis to effectively reduce the huge impact of cancer. In order to plan cancer prevention and control projects, the Taiwan Ministry of Health and Welfare established a cancer registration system for hospitals by administrative order in 1979, requesting the summary data on epidemiology, diagnosis, and treatment of new cancer cases. Other countries also built several similar systems to achieve their specific demands. How to use these kinds of data to solve the clinical issues is particularly important.

We will show the useful methods and the primary results of gynecologic oncology from the different database. The database not only can assist the clinician in formulating the patient's treatment direction, but also provides relevant information to assist the health unit to deploy the future medical resources more effectively. At the same time, the data analysis can help the clinical staff to figure out the inadequacies of current medical record system and provide suggestions for future improvement. It also can help us to achieve the goal of precision medicine.

Chen-Hsuan Wu

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Director of Division of Gynecologic Oncology in Kaohsiung Chang Gung Memorial Hospital

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1. MD degree since June 30, 2002, Kaohsiung Medical University, Kaohsiung city.
2. Post-Graduate Education : PhD Candidate of Chang Gung University
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1. Attending physician of Department of Obstetrics and Gynecology, Kaohsiung Chang Gung Memorial Hospital (since Jan. 1, 2009~present)
2. Board of Specialist of Taiwanese Association of Obstetrics and Gynecology, Since October 2008~present
3. Research Fellowship of Division of Departments of Pathology, Oncology and Gynecology/ Obstetrics, Johns Hopkins University School of Medicine (July, 1, 2011 to Oct. 31, 2012)
4. Director of Division of Gynecology Oncology, Department of Obstetrics and Gynecology, Kaohsiung Chang Gung Memorial Hospital (since July 1, 2016~present)
5. Board of Specialist of Taiwanese Association of Gyencology Oncologist, since May 2016~present

Shared decision-making in real practice

Chen-Hsuan Wu

Shared decision-making (SDM) has become increasingly important in health care. SDM occurs when a health care provider and a patient work together to make a health care decision that is best for the patient. Health care providers explain treatments and alternatives to patients and help them choose the treatment option that best aligns with their preferences as well as their unique cultural and personal beliefs. The optimal decision takes into account evidence-based information about available options, the provider's knowledge and experience, and the patient's values and preferences. The core elements of SDM are risk communication and values clarification. Values clarification considers both patient values and patient preferences. Preferences are inclinations toward or away from an option. Values are the underlying feelings that help determine preferences. However, despite scientific evidence, effective implementation strategies, and a prominent position on the health policy agenda, SDM is not widely implemented in routine practice so far. Making SDM a reality is really a complex task, in this talk, we will share our experience about how to apply it into everyday practice and how to facilitate the implementation in clinical situations.

Shu-Jen Chen

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Professional Experiences (Top 5):

2014 – Present	CSO and Co-founder, ACT Genomics
2009 – 2014	Associate Professor, Department of Biomedical Sciences, Chang-Gung University, Taiwan
2006 – 2009	Associate Research Fellow, Molecular Medicine Research Center, Chang-Gung University
2001 – 2006	Investigator & Molecular Biology Group Leader, TaiGen Biotechnology Inc.
1998 – 2001	Principle Investigator, Biotechnology and Pharmaceutical Research Division, National Health Research Institutes (NHRI), Taiwan
1995 – 1998	Senior Research Scientist, Department of Biochemistry, SUNY at Buffalo, USA
1993 – 1995	Research Assistant Professor, Department of Physiology, SUNY at Buffalo, USA
1989 – 1993	Postdoctoral Fellow, Department of Neuroscience, Baylor Medical College, USA

Precision medicine in gynecologic cancers

Shu-Jen Chen

Advanced gynecologic malignancies including ovarian, uterine, cervical, vaginal, and vulvar cancer bear a dismal prognosis and constitute a major challenge for adequate treatment strategies. Despite intense research efforts and therapeutic advances, gynecologic cancers remain a leading cause of cancer deaths until recent years. Over the last decade, we have witnessed how a subtype-specific approach to ovarian cancers has dramatically changed management, including what surgery is performed, and which or if any adjuvant treatment is needed. Even more importantly, rapidly evolving technologies such next-generation sequencing (NGS) have allowed us to translate our knowledge in cancer genomics and pharmacology into more precise, more effective, and more creative cancer care. By analyzing and targeting molecular alterations, molecular guided treatments gradually become a viable option for the management of advanced gynecologic cancers. This talk will illustrate how NGS-based genetic testing and associated biomarkers such as BRCA1/2 mutations and homologous recombination deficiency (HRD) have been used for the management of gynecologic cancers.

Katsutoshi Oda

Current Position:
Professor, Division of Integrative Genomics, Graduate School of Medicine, The University of Tokyo
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Education:
1994: Resident, Department of OB&GYN, The University of Tokyo (U-Tokyo), Japan
1997: Graduate student, Graduate School of Medicine, U-Tokyo
2001: Department of Gynecology, Saitama Cancer Center
2002: Department of OB&GYN, U-Tokyo
2005: Post-doctoral Research Fellow, Cancer Research Institute, University of California, San Francisco, CA, USA
2007: Department of OB&GYN, U-Tokyo
2013: Assistant Professor (Lecturer), Department of OB&GYN, U-Tokyo
2014: Associate Professor, Department of OB&GYN, Graduate School of Medicine, U-Tokyo
2020- present: Professor, Division of Integrative Genomics, Graduate School of Medicine, U-Tokyo

Professional Experiences (Top 5):
1. Chairperson of the committee of Translational Research (TR) in Japanese Gynecologic Oncology Group (JGOG)
2. Principal Investigator of Investigator-initiated clinical trial: A multi-center, phase II study of Olaparib maintenance therapy for high-grade ovarian cancer with positive biomarker by exome sequencing. JapicCTI-184036
3. Certified clinical geneticist in Japanese Board of Medical Genetics and Genomics, Clinical Genetics
4. Councilor in Japanese Cancer Association (JCA) and Japan Society of Clinical Oncology (JSCO), and The Japan Society of Human Genetics (JSHG)
5. Certified gynecologic oncologist in Japan Society of Clinical Oncology

Mechanism targeting homologous recombination deficiencies in ovarian cancer

Katsutoshi Oda

In addition to Olaparib, Niraparib has been approved as a maintenance therapy in Japan (PMDA: Pharmaceuticals and Medical Devices Agency) for newly diagnosed, advanced primary ovarian cancer, as well as platinum-sensitive, relapsed ovarian cancer who are in a complete or partial response to platinum-based chemotherapy. In addition, PMDA also approves niraparib for HRD-positive advanced ovarian cancer, who are treated with three or more prior chemotherapy regimens. Companion diagnostics for HRD-positivity is the Myriad myChoice CDx as either tumor BRCA mutated (tBRCAm) and/or a high genomic instability score (GIS: 42 or higher).

Niraparib has been approved for primary for first-line maintenance of advanced ovarian cancer, regardless of HRD status, as long as they are sensitive to platinum-based chemotherapy.

However, PAOLA-1 study has strongly suggested that Positive HRD status (regardless of BRCA status) by Myriad myCHoice CDx is associated with the sensitivity to olaparib with bevacizumab in a maintenance setting.

Therefore, HRD status, as well as tBRCAm (germline of somatic BRCAm), will gather much attention as a biomarker for a PARP inhibitor.

PARP inhibitors block the enzyme activity of poly ADP ribose polymerase (PARP) and prevent base excision repair, which leads to accumulation of double strand breaks. As HRD-positive cancer cells cannot correctly repair double strand breaks, HRD-positive cancer cells are sensitive to PARP inhibitors. In addition, PARP trapping is another mechanism of PARP inhibitors. Trapping PARP1 and PARP2 to the sites of DNA damage (DNA-PARP complex) causes cytotoxicity in cells. The PARP trapping potency is distinct among PARP inhibitors (talazoparib, niraparib, olaparib, rucaparib and veliparib). This difference may be associated with the anti-tumor activity and adverse events.

In addition to GIS, evaluated by Myriad myChoice CDx, mutational signatures may reflect the HRD status. Mutational signatures are composed of substitution patterns of nucleotides (using the six substitution subtypes: C>A, C>G, C>T, T>A, T>C, and T>G) in cancer tissues, which reflect a process of oncogenesis and exogenous/endogenous mutagen exposures. “BRCA signature” is a specific mutational signature, which is associated with HRD, including BRCA mutations.

In this symposium, mechanisms of PARP inhibitors will be reviewed with explanation of the strategy to evaluate HRD in cancers.

Ya-Min Cheng

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- Department of Medicine, College of Medicine, National Cheng Kung University, Taiwan, R.O.C
- 1st to 3rd year resident in Department of OB/GYN. National Cheng Kung University Hospital
- Chief resident in Department of OB/GYN. National Cheng Kung University Hospital
- Gynecology Oncology Fellow in Department of OB/GYN. National Cheng Kung University Hospital
- Fellowship of National Cancer Center, Tokyo, Japan
- PHD candidate of Institute of Clinical Medical Research
- Professor of Obstetrics and Gynecology, Medical College and Hospital, National Cheng Kung University

Professional Experiences (Top 5):
Director of Teaching Center, National Cheng Kung University Hospital
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Director of Taiwan Association of Gynecology Oncology (TAGO)
Director of Taiwan Association of Obstetrics Gynecology (TAOG)
Director of Taiwan Association for minimally invasive Gynecology (TAMIG)

Biomarker and genetic testing for PARP inhibitor

Ya-Min Cheng

The study result of SOLO 1 revealed the use of maintenance therapy with olaparib provided a substantial benefit with regard to progression-free survival among women with newly diagnosed advanced ovarian cancer and a BRCA1/2 mutation. The study result of PAOLA 1 for patients with advanced ovarian cancer receiving first-line standard therapy including bevacizumab, the addition of maintenance olaparib provided a significant progression-free survival benefit, which was substantial in patients with HRD-positive tumors, including those without a BRCA mutation. These studies pointed out the importance of gene test for HGSC.

Currently available HRD tests are useful for predicting likely magnitude of benefit from PARPis but better biomarkers are urgently needed to better identify current homologous recombination proficiency status and stratify HGSC management

Hung-Hsueh Chou

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3. Member of Standing Committee, Taiwanese Association of Gyncological oncologist
4. Member of Committee of Postgraduate Training affair

Safety and QoL of Avastin in Gyn Cancer

Hung-Hsueh Chou

The rationale to use an antiangiogenetic treatment in cancer is related to the presence of hypoxia in cancer tissue; the reduction of oxygen induces the transcription of vascular endothelial growth factor receptor (VEGF-R) on the endothelial cells; subsequently, the binding of circulating vascular endothelial growth factor (VEGF) with the receptor leads to proliferation of new vessels, promoting tumor growth.

Bevacizumab, a humanized monoclonal IgG antibody that targets VEGF-R, has been one of the first and most investigated antiangiogenetic drugs, and several evidences demonstrated its efficacy also in OC and CC.

Bevacizumab is approved for the first-line treatment of AOC, fallopian tube, and primary peritoneal cancers due to the results of two randomized controlled Phase III trials. It is also the first and only target therapy approved of CC first-line combination systemic treatment based on a randomized controlled Phase III trial.

The International Collaborative Ovarian Neoplasm Trial 7 (ICON-7) and the Gynecologic Oncology Group protocol (GOG-0218) demonstrated an improvement of progression-free survival (PFS), mainly in the high-risk OC population; the "higher risk" was defined as patient with a FIGO stage III tumor, suboptimal debulked (residual disease [RT] after IDS >1 cm) or stage IV. Gynecologic Oncology Group protocol (GOG-0240) proved Bevacizumab the standard of care to prolong PFS and OS in cervical cancer.

Despite recent studies confirmed, the truth of bevacizumab plays a pivotal role in the ovarian and cervical cancer leading to the eventual development of malignant diseases. On this basis, these agents are generally patent-offed for used in some therapeutic treatment. Follow by the regulatory of bio-similar drug entrance, the safety and efficacy for gyn patients care is the main point we should monitor. Here, we discuss the basis of and the logic behind the approval of these agents in the treatment of cancers, as well as their evaluation in different perspectives and rules.

Ying-Cheng Chiang

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5. Director, Department of Obstetrics and Gynecology, National Taiwan University Hospital Yunlin Branch

Evolving Area of Maintenance Therapy in Recurrent Ovarian Cancer

Ying-Cheng Chiang

Ovarian cancer is one of the leading causes of death from gynecologic malignancy. Despite high response rate to standard platinum-based chemotherapy, many patients recur subsequently and repeated recurrence with decreased platinum sensitivity follows. To prolong progression free interval of ovarian cancer, targeted therapy arose as maintenance therapy in the past decade. Bevacizumab, an anti-vascular endothelial growth factor (VEGF), was first used.

Poly (adenosine diphosphate–ribose) polymerase (PARP) inhibitors has been evolving after. Inhibition of PARP, an enzyme required in single-stranded DNA break repair, has proven to be effective in cancers that involve DNA repair mechanism defects. In 2014, olaparib became the first PARP inhibitor to be approved for the maintenance treatment of recurrent, epithelial ovarian, fallopian tube, or primary peritoneal cancer in patients who are in complete or partial response to platinum-based chemotherapy with clinical evidence of Study 19 and SOLO-2.

In 2017, niraparib was approved based on the results of NOVA trial, a randomized, double-blind, placebo-controlled phase III. NOVA trial demonstrated niraparib significantly prolonged progression-free survival in patients with recurrent, platinum-sensitive, high grade serous ovarian, fallopian tube or primary peritoneal cancer, regardless of BRCA mutation or homologous recombination deficiency (HRD) status. It also suggests that niraparib is an effective new option with a manageable tolerability profile.

Shih-Tien Hsu

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Professional Experiences (Top 5):
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PARP inhibitors in ovarian cancer

Shih-Tien Hsu

Poly ADP-Ribose Polymerase inhibitors (PARPi) were firstly licensed for maintenance treatment in recurrent, platinum-sensitive epithelial ovarian cancer patients. The recent three phase III trials showed that there is a role for PARPi also in first-line setting, as maintenance therapy after platinum-responsive chemotherapy. Nevertheless the published trials raised several questions on what is the best treatment according to the molecular status, tumor histology and the response to platinum. Following the previous talk by professor Wu, the published data was summarized to discuss clinical decision making on what could be the best sequence or combination of treatments on new diagnosed advanced ovarian cancer for the three molecular profiles (the carriers of a BRCA mutation (BRCAmut), those with a deficiency in homologous recombination system (HRd) and those with a proficient homologous recombination system (HRp)).

Jen-Ruei Chen

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Professional Experiences (Top 5):
National Board of Medical Examiners Diploma of R.O.C. (No. 28012)
National Board of Obstetrics and Gynecology of R.O.C. (No. 2652)
Board of Taiwan Association of Gynecologic Oncology (No. 0087)
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Immuno-Oncology in Gynecological Malignancies

Jen-Ruei Chen

Immuno-oncology, also known as cancer immunotherapy, is a new field of cancer therapy. It is an artificial stimulation of the immune system to treat cancer, re-enforce the immune system's natural killing ability to recognize and destroy the cancer cells. After understanding the current basic knowledge of immunology, cancer immunology has also been well studied in recent two decades. In 2013, Daniel S. Chen and Ira Mellman reviewed "The cancer immunity cycle" in the journal called Immunity Review and pointed out some future new investigations of cancer immunotherapy. In 2018, American immunologist James P. Allison and Japanese immunologist Tasuku Honjo received the Nobel Prize in Physiology or Medicine for their discovery of cancer therapy by inhibition of negative immune regulation.

The carcinogenesis is characterized by the accumulation of a consecutive genetic alterations and the loss of normal cellular regulatory/apoptosis processes. These events lead the expression of neoantigens, differentiation antigens, or cancer testis antigens. Presentation of antigens and bound to major histocompatibility class I (MHC-I) molecules on the surface of cancer cells, will make them show different immunity characteristics from normal somatic cells. The hypothesis of cancer immunotherapy is that cancer cells have unique tumor antigens or molecules presents on their cell surface. After activating the immuno-system, immune cells (T-cell, B-Cell, nature killer cells or dendritic cells) could recognize the unique cancer antigen or molecular, and proceed destroy function to cancer cells.

Currently, many researches had reported their efforts in cancer immunotherapies. In summary, they are "Cellular immunotherapy (Dendritic cell therapy, CAR-T cell therapy)", "Antibody therapy (including cell programmed death pathways)", "Cytokine therapy (Interferon, Interleukin)", "Combination immunotherapy", "Polysaccharide-K", and many new molecular biological fields which are also under investigation.

The goal of cancer immunotherapy is to initiate or reinitiate a self-sustaining cycle of cancer immunity, enabling it to amplify and propagate, but not so much as to generate unrestrained autoimmune inflammatory responses. Amplifying the entire cycle may provide anticancer activity, however, it probably causes the potential cost of unwanted damage to normal cells and tissues. Fortunately, many of the cancer immunotherapy approaches report safety profiles that are milder and more manageable than traditional (i.e., surgery, radiation or chemotherapy) or targeted (i.e., oncogene-centric) cancer therapies.

In this brief talk, the concept of cancer immunity cycle will be reviewed. Stimulating and inhibitory factors in each steps of immunity cycle will also be presented for understanding the possible application of these factors in current cancer immunotherapies. Finally I will focus on the current evidence or clinical trials of the agents/medicine that connections between up-to-date cancer immunotherapies and gynecological cancer treatments.

David SP Tan

Current Position:
Senior Consultant Medical Oncologist
Associate Professor, Yong Loo Lin School of Medicine

Education:
Dr David Tan graduated with an intercalated BSc in Experimental Pathology (1st Class Honours) and MBBS with Distinction from Guy's, King's and St Thomas' School of Medicine, University of London, UK. He undertook training in internal medicine at Hammersmith Hospital and Guy's and St Thomas' Hospitals in London. He was awarded a Cancer Research UK (CRUK) Clinical Research Fellowship in 2005 at The Institute of Cancer Research, London, where he obtained his PhD in oncology. He completed his specialist training in medical oncology at The Royal Marsden Hospital, London, UK and completed a fellowship at the Princess Margaret Cancer Centre, University of Toronto, Canada, in Drug Development and Gynaecologic Oncology before returning back to Singapore.

Professional Experiences (Top 5):

2020-present	Co-Chair Cervical Cancer Research Network (CCRN) of the Gynecologic Cancer InterGroup (GCIG)
2019-present	Chair of the Asia-Pacific Gynecologic Oncology Trials (APGOT) Group
2019-present	Scientific Committee Member for the European Society of Medical Oncology (ESMO) Gynaecological Cancers Sub-Committee
2018-present	Scientific Committee Member for the European Society of Medical Oncology (ESMO) Targeted Anticancer Therapies (TAT) Conference
2017-present	Asian Society of Gynecologic Oncology (ASGO) Council Member and President of the Gynecologic Cancer Group Singapore (GCGS)

Biomarkers in Immuno-oncology for Gynecological Cancers

David SP Tan

In recent years, immunotherapy has transformed the treatment landscape of cancer. In particular, immune therapy targeting immune checkpoint receptors such as programmed cell- death 1 (PD-1), and programmed cell-death ligand 1 (PD-L1) are among the most promising approaches, having demonstrated clinical activity in a wide variety of tumors, including ovarian, cervical and endometrial cancers. In this talk, the current evidence for predictive biomarkers of response to immunotherapeutic approaches in gynecologic malignancies will be discussed.

Cherry Yin-Yi Chang

Current Position:
Director of endoscopic division, department of Ob/Gyn, China Medical University Hospital 2015-now
Director of the evidence-based medicine center of China Medical University Hospital 2015-now
Assistant Professor, Medical School, China Medical University Hospital, Taichung, Taiwan

Education:

PhD	China Medical University, School of Public Health, Taiwan	2008-2013
MPH	University of Michigan, School of Public Health. Ann Arbor, USA	2005-2007
MS	China Medical University, School of Medicine, Taiwan	2001-2003
MD	China Medical University, School of Medicine, Taiwan	1988-1995

Professional Experiences (Top 5):
Member of the Board of Director of Taiwan Association of obstetrics and Gynecology
Member of Taiwan Association of Gynecology Oncology
Member of the Board of Supervisors for Taiwan Association for Minimal Invasive Gynecology

Cell therapy in gynecologic cancers

Cherry Yin-Yi Chang

Gynecologic cancer is common and problematic disease for women. Surgery, chemotherapy and radiation are the main strategies of the treatment for gynecology cancer. Nevertheless, the prognosis of some gynecology cancers are not improved lot. In recent years, there is dawn that target therapies are applied in the treatment of ovarian cancer and the survival is prolonged in studies. However, we still need more new innovations for the treatment of gynecology cancer to improve outcome of patients and cellular therapy is gradually grabbing scientist's attention. Some forms of cell therapy have been proposed around since the 1950s, to treat certain types of cancer. In 2017 of the first CAR T-cell therapies to treat leukemia was a milestone of the cell therapy applied in treating cancer. Since then, global investment in cell therapy is increasing, and cancer cell therapy has become one of the most promising approaches for cancer treatment. In human body, immune cells known as killer T cells are against cancer, due to their ability to bind to markers known as antigens on the surface of cancer cells. Cellular immunotherapies can be utilized in several ways to fight with cancers, such as Tumor-Infiltrating Lymphocyte (TIL) Therapy,Engineered T Cell Receptor (TCR) Therapy,Chimeric Antigen Receptor (CAR) T Cell Therapy,Natural Killer (NK) Cell Therapy ect. Application of cellular immunotherapy on gynecology cancer were reported but data was limited. But Cancer immunotherapy is evolving quickly. Understanding the biomarkers of response to this therapy and identifying mechanisms to overcome immune suppression and counter regulation are critical in the future studies.

Wen-Shiung Liou

Current Position:
Deputy Director of Obstetrics and Gynecology in Kaohsiung Veterans General Hospital

Education:
Sep. 1983 – July 1990, National Defense Medical Center, Taiwan, R.O.C.

Professional Experiences (Top 5):

Dec 2003 – Jan 2005	Visiting Scholar for gynecologic oncology training in Stanford University
July 2008 – Jan 2013	Director of Cancer Center in Kaohsiung Veterans General Hospital
July 2016 – 2018	Manages the supervisor in Taiwan Association of Gynecologic Oncologists
Sep 2012 – Sep 2019	Director of obstetrics and Gynecology in Kaohsiung Veterans General Hospital

Trabectedin in gynecological cancer

Wen-Shiung Liou

Trabectedin is a DNA-binding agent with a unique antitumor mechanism of action targeting the transcription-coupled nucleotide excision repair (NER) system. Trabectedin traps members of the NER mechanism forming large complexes that inhibit NER activity resulting in single-strand DNA breaks. These breaks subsequently stall replication forks leading to double-strand DNA breaks and resulting in cell death. Trabectedin exerts its action by binding to the N2 position of guanine in the DNA minor groove, and this bends the DNA towards the major groove, thereby inhibiting inducible transcription. Due to its effect on tumor-associated macrophages and histiocytes, trabectedin is postulated to have immunomodulatory effects on the tumor microenvironment.

Trabectedin in combination with pegylated liposomal doxorubicin (T + PLD) is approved in the European Union and many other countries for treatment of patients with recurrent platinum-sensitive ovarian cancer. These drug entities, with non-overlapping toxicities, can induce DNA breaks leading to cell apoptosis through different mechanisms of action. The BRCA1 protein is important in the repair of these DNA breaks via the transcription-coupled NER complex and hence mutations in BRCA1 are likely to be associated with better treatment response. The primary function of BRCA2 is in homologous recombination (HR) mediated by the assembly of RAD51 on dsDNA. In RAD51 mutant yeast strains, trabectedin displayed hypersensitivity supporting active NER during the processing/repair of the drug induced lesions.

Otherwise, leiomyosarcoma (LMS) is a common histologic subtype of soft tissue sarcomas (STS), most of which arise in the uterus. Although uterine leiomyosarcomas (uLMS) account for fewer than 5% of all uterine malignancies, they represent approximately half of all uterine sarcomas. The treatment of metastatic uLMS remains a considerable challenge. First- and second-line chemotherapy options include fixed dose rate gemcitabine plus docetaxel which achieves an objective response in approximately 30% of patients, single-agent gemcitabine, which achieves an objective response in approximately 20% of patients, and doxorubicin-based treatment, with similar objective responses. Systemic treatment options are limited for patients with uLMS after anthracycline failure.

In several prospective clinical trials and retrospective analyses, trabectedin has demonstrated prolonged disease control in patients with LMS or liposarcoma (LPS). The post hoc subset analysis of data from a large randomized phase 3 trial, women with uLMS who had received prior anthracycline treatment achieved a significant improvement in PFS with trabectedin compared with dacarbazine. The observed efficacy and toxicity profile of trabectedin was similar to that reported in the overall LMS and LPS population. This subset analysis confirms the ability of trabectedin to achieve clinically meaningful disease control rates for prolonged treatment periods, thereby supporting its use for women with advanced uLMS.

Chyong-Huey Lai

Current Position:
- Vice President, Linkou Chang Gung Memorial Hospital
- Director, Gynecological Cancer Research Center, Chang Gung Memorial Hospital
- Chairperson, Asian Gynecologic Oncology Group
- Distinguished Professor, Chang Gung University Department of Medicine

Education:
- National Taiwan University, College of Medicine
- Visiting Clinical Fellow Gynecologic Oncology, Dept. of Obstetric & gynecology, Yale University School of Medicine, U.S.A.
- Visiting Clinical Fellow Gynecologic Oncology, Dept. of Obstetrics & Gynecology, Columbia-Presbyterian Medical Center, College of Physician and Surgeon, Columbia University, U.S.A.

Professional Experiences (Top 5):

Lai CH*, Chao A, Huang HJ, Hsueh S, Lin CT, Huang SL, Chao FU, Qiu JT, Hong JH, Chou HH, Chang TC, Chang CJ. Human papillomavirus genotype in cervical cancer: a population-based study. Int J Cancer 2007; 120:1999-2006. (IF=6.513；R/C=24/217；ONCOLOGY) *corresponding author

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Lin G, Ng KK, Chang CJ, Wang JJ, Ho KC, Yen TC, Wu TZ, Wang CC, Chen YR, Huang YT, Ng SH, Jung SM, Chang TC, Lai CH.* Myometrial invasion depth in endometrial cancer: diagnostic accuracy of diffusion-weighted MR imaging at 3.0 T: initial experience at 3.0 T. Radiology 2009; 250:484-792. (IF=7.296；R/C=2/126；RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING)*corresponding author

What's next for PARP inhibitors? PARPi resistance and ways to overcome

Chyong-Huey Lai

It's well known that tumor cells with DNA repair defect, e.g. BRCA1/2 mutation, are more sensitive to PARP inhibitors (PARPi) through the mechanism of synthetic lethality. Several PAPR inhibitors have been approved for ovarian cancer indications, including olaparib, niraparib and rucaparib.

However, PARPi resistance is not unusual in clinical practice. Some BRCA1/2-deficient patients fail to respond to PARPi while some other patients acquire PARPi resistance with prolonged oral administration of PARP inhibitors.

Homologous recombination repair deficiency (HRD), as a prerequisite of synthetic lethality, plays a critical role in killing tumor cells. As you can see, PARPi are much more effective in homologous recombination repair deficient tumor cells than in homologous recombination repair proficient cells. Therefore, Homologous recombination repair restoration becomes the predominant reason of PARPi resistance.

Various factors, such as DNA replication fork protection, reversion mutations, epigenetic modification, restoration of ADP-ribosylation (PARylation) and pharmacological alteration may lead to PARPi resistance. This talk will focus on the underlying mechanisms of PARP inhibitor resistance and bring out the potential strategies (e.g. PARPi combinations approach) to overcome PARPi resistance and increase PARPi sensitivity.

Young Doctor Session/Oral Presentation

Chia-Lin Chou

Current Position:
Attending Physician, Division of Colorectal Surgery, Chi-Mei Medical Center

Education:
M.D. degree: 1998-2005 Taipei Medical University / School of Medicine, Taipei, Taiwan
Ph.D degree: 2015/9-now National Sun Yat-sen University / Institute of Biomedical Science, Kaohsiung, Taiwan

Professional Experiences (Top 5):
Laparoscopic colorectal surgery
Da Vinci Robotic surgery
Transanal minimal invasion surgery (TAMIS)
Transanal total mesorectal excision (TaTME)
Anal surgery

Clinical Impact and Prognostic Factors of Oophorectomy for Ovarian Metastasis from Colorectal Cancer: a single institution experience

Topic: Clinical Impact and Prognostic Factors of Oophorectomy for Ovarian Metastasis from Colorectal Cancer: a single institution experience

Authors: Chia-Lin Chou[1,2]; Yu-Feng Tian[1]; Li-Chin Cheng[1]; Chien-Feng Li[3,4,5]; Chieh-Yi Kang[6]; Kuo-Feng Huang[6]
Affiliation:
1 Division of Colorectal Surgery, Department of Surgery, Chi-Mei Medical Center, Tainan, Taiwan.
2 Institute of Biomedical Sciences, National Sun Yat-sen University, Kaohsiung, Taiwan
3Department of Pathology, Chi Mei Medical Center, Tainan, Taiwan.
4 Department of Medical Research, Chi Mei Medical Center, Tainan, Taiwan
5 National Institute of Cancer Research, National Health Research Institutes, Tainan, Taiwan
6 Department of Obstetrics and Gynecology, Chi Mei Medical Center, Tainan, Taiwan.

Background:
Ovarian metastases have previously been reported as occurring in 2%–8% of women with metastatic colorectal cancer (CRC). The current study aimed to investigate the characteristics and prognosis of surgical treatment for ovarian metastasis from colorectal cancer and to establish an optimal management plan.
Methods and Results:
This is a single-institution retrospective study of patients with CRC with ovarian metastases from 2000 to 2019. 52 Patients who underwent primary tumor resection and oophorectomy were collected for analysis. We evaluated patient, disease, and treatment related factors associated with overall survival from initial diagnosis of CRC with ovarian metastasis.
The median age at diagnosis was 49.9 (range: 28 – 82) years. All of the patients presented with advanced tumor (at least T3), and almost all patients had an N-positive tumor. In total, 50 (96.2%) patients had moderately differentiated adenocarcinoma; 2 (3.8%), poorly differentiated adenocarcinoma; and 5 (9.6%), mucinous adenocarcinoma. Moreover, 22 (42.3%) patients experienced bilateral ovarian involvement. The peritoneum (44.2%) was the most common concurrent metastatic site, followed by the liver (40.4%) and lung (11.5%). The median survival time after surgery was 21 (95% confidence interval: 7–72) months. Curative resection (R0) was achieved in 16 (30.8%) patients. Degree of residual tumor is significantly associated with overall survival in the univariate and multivariate analysis ($p<0.001$ and $p=0.029$).
Conclusion:
In carefully selected patients, curative resection for ovarian metastasis is effective and could offer potential long-term survival.

Young Doctor Session/Oral Presentation

Malika Kengsakul

Current Position:
Lecturer, Department of Obstetrics and Gynaecology,
Panyananthaphikkhu Chonprathan Medical Center,
Srinakharinwirot University, Thailand

Education:
- Certificate of Medical Proficiency in Gynaecological Endoscopy, 2020
- Diploma of the Thai Board of Gynaecological Oncology, 2018
- Diploma of the Thai Board of Obstetrics & Gynecology, 2015
- Thai Medical License, 2010

Professional Experiences (Top 5):
-Gynaecological Oncologist

Extra-nodal Involvement of Diffuse Large B-cell Lymphoma Mimics Locally Advanced Cervical Cancer: A Case Report and Literature Review

Authors:[1]Malika Kengsakul, [2]Naritsara Wongtong, [3]Theethat Mongkornthong [4]Kanittha Kitsombut
Affiliation:[1,3,4]Department of Obstetrics and Gynecology, Panyananthaphikkhu Chonprathan Medical Center, Srinakharinwirot University, Nonthaburi, Thailand
[2]Department of Medicine, Panyananthaphikkhu Chonprathan Medical Center, Srinakharinwirot University, Nonthaburi, Thailand

Background:
Diffuse large B-cell lymphoma (DLBCL) is the most common subtype of non-Hodgkin lymphoma (NHL). Approximately, 40% of DLBCL originates from extra-nodal sites. The common original sites are gastrointestinal tract, testis, central nervous system, breast, mediastinum, skin and bone. Extra-nodal involvement of female genital tract organ was reported however, it is extremely rare.
Methods and Results:
We presented a case of an active 63-year-old, multiparous, menopause woman. Our patient underwent an incidental cervical biopsy during her annual checkup. A week later, she was referred to our hospital for further treatment. Her provisional diagnosis was locally advanced cervical cancer. However, the initial cell type was atypical cell cannot exclude malignancy. The pelvic examination reviewed a whole infiltrative dark red, hard consistency cervix and short fornices. Her rectovaginal examination was normal, no parametrial involvement was observed. Other physical examinations were normal. The initial tissue slides were reviewed and a repeat cervical biopsy and endocervical curettage was performed. During a month of investigation, she developed multiple lymphadenopathy and significant weight loss. The CT Scan showed diffuse thickening wall of gallbladder with suspected of invasion of adjacent liver, multiple intraabdominal and groin lymphadenopathy, splenomegaly and minimal ascites. The final immunohistochemistry report was diffuse large B-cell lymphoma. Marrow and bone biopsy studies were negative. The diagnosis was diffuse large B-cell lymphoma Ann Arbor stage IVB. The patient was referred to hematologist and received 8 courses of R-CHOP (Rituximab, Cyclophosphamide, Doxorubicin, Vincristine and Prednisone). After second courses of R-CHOP, the cervix appeared normal. The patient showed a complete response and remained in remission. The presentation, treatment and clinical outcome of our case and previous published cases were reviewed and discussed.
Conclusion:
NHL of the female genital tract is rare. The diversity of disease manifestation can mimic primary neoplasms. A high level of suspicion and multidisciplinary approach are mandatory to perform a timely diagnosis and an appropriate treatment to improve the outcome and avoid unnecessary surgery or radiation.
Keywords:
hematologic malignancy, cervical cancer, large B-cell lymphoma, extra-nodal involvement

Young Doctor Session/Oral Presentation

Se-Ik Kim

Current Position:
Research Professor,
Biomedical Research Institute, Seoul National University Hospital
Department of Obstetrics and Gynecology,
Seoul National University College of Medicine,
Seoul, Republic of Korea

Education:

2005.3-2009.2	M.D., Seoul National University College of Medicine
2012.3-2014.2	M.S., Seoul National University Graduate School
2017.3-	Ph.D. course, Seoul National University Graduate School

Professional Experiences (Top 5):
Institutional Training

2009.3-2010.2	Internship, Seoul National University Hospital, Seoul National University College of Medicine
2010.3-2014.2	Residency, Dept. of Obstetrics and Gynecology, Seoul National University Hospital
2017.5-2020.9	Fellowship, Division of Gynecologic Oncology, Dept. of Obstetrics and Gynecology, Seoul National University Hospital

Publications

Proteomic Discovery of Biomarkers to Predict Prognosis of High-Grade Serous Ovarian Carcinoma
Kim SI, Jung M, Dan K, Lee S, Lee C, Kim HS, et al. Cancers (Basel). 2020;12:790.

Comparison of survival outcomes between minimally invasive surgery and conventional open surgery for radical hysterectomy as primary treatment in patients with stage IB1-IIA2 cervical cancer.
Kim SI, Cho JH, Seol A, Kim YI, Lee M, Kim HS, et al. Gynecol Oncol. 2019;153(1):3-12.

Development of Web-Based Nomograms to Predict Treatment Response and Prognosis of Epithelial Ovarian Cancer.
Kim SI, Song M, Hwangbo S, Lee S, Cho U, Kim JH, et al. Cancer Res Treat. 2019;51(3): 1144-55.

Genomic landscape of ovarian clear cell carcinoma via whole exome sequencing.
Kim SI, Lee JW, Lee M, Kim HS, Chung HH, Kim JW, et al. Gynecol Oncol. 2018;148(2):375-82.

Low Adoption Rate of iRECIST Guidelines in Recurrent Gynecologic Cancer Patients Treated with Immune Checkpoint Inhibitors

Authors: Se Ik Kim, MD, Maria Lee, MD, PhD, Jae-Weon Kim, MD, PhD*
Affiliation: Department of Obstetrics and Gynecology, Seoul National University College of Medicine, Seoul 03080, Republic of Korea

Introduction:
Two immune checkpoint inhibitors, pembrolizumab (pembro) and nivolumab (nivo), have been permitted by the Korean Food and Drug Administration in treatment of recurrent gynecologic cancers since November 2017. Currently, iRECIST (modified RECIST v1.1 for immune-based therapeutics) is available for response evaluation in clinical trials and practice also. We aimed to present real-world experience with pembro and nivo regarding response evaluation in two tertiary hospitals.
Materials and Methods:
We identified patients with recurrent ovarian, cervical, and endometrial cancers treated with immune checkpoint inhibitor monotherapy between November 2017 and May 2020. We excluded patients who were enrolled in clinical trials. Through the review of patients' medical records, clinicopathologic characteristics, and response data were collected. Tumor response was evaluated by both the RECIST v1.1 and iRECIST guidelines.
Results:
In total, 59 patients were included in this analysis (41 for pembro and 18 for nivo). Mean patient age was 57.6 years, and median treatment lines and cycles for pembro/nivo were 5 (range, 3-9) and 4 (range, 1-28), respectively. Pembro/nivo treatment was still ongoing in 6 patients. Among 35 patients who showed progressive disease (PD) by RECIST v1.1, 14 (40.0%) patients stopped pembro/nivo without imaging F/U, while 21 patients (60.0%) were regarded as iUPD by iRECIST and continued pembro/nivo with imaging F/U. Overall, the objective response rate was 8.5% and median progression-free survival (PFS) was 3.0 months, however, these values further decreased to 6.8% and 1.9 months, respectively, when RECIST v1.1 was strictly applied.
Conclusion:
The adoption rate of iRECIST in patients with recurrent gynecologic cancers was 60.0%. Our study results demonstrate the necessity of imaging follow-up for confirmation of response, rather than direct discontinuation of the drugs, as recommended by the iRECIST.

Young Doctor Session/Oral Presentation

Se-Ik Kim

Current Position:
Research Professor,
Biomedical Research Institute, Seoul National University Hospital
Department of Obstetrics and Gynecology,
Seoul National University College of Medicine,
Seoul, Republic of Korea

Education:

2005.3-2009.2	M.D., Seoul National University College of Medicine
2012.3-2014.2	M.S., Seoul National University Graduate School
2017.3-	Ph.D. course, Seoul National University Graduate School

Professional Experiences (Top 5):
Institutional Training

2009.3-2010.2	Internship, Seoul National University Hospital, Seoul National University College of Medicine
2010.3-2014.2	Residency, Dept. of Obstetrics and Gynecology, Seoul National University Hospital
2017.5-2020.9	Fellowship, Division of Gynecologic Oncology, Dept. of Obstetrics and Gynecology, Seoul National University Hospital

Publications

Proteomic Discovery of Biomarkers to Predict Prognosis of High-Grade Serous Ovarian Carcinoma
Kim SI, Jung M, Dan K, Lee S, Lee C, Kim HS, et al. Cancers (Basel). 2020;12:790.

Comparison of survival outcomes between minimally invasive surgery and conventional open surgery for radical hysterectomy as primary treatment in patients with stage IB1-IIA2 cervical cancer.
Kim SI, Cho JH, Seol A, Kim YI, Lee M, Kim HS, et al. Gynecol Oncol. 2019;153(1):3-12.

Development of Web-Based Nomograms to Predict Treatment Response and Prognosis of Epithelial Ovarian Cancer.
Kim SI, Song M, Hwangbo S, Lee S, Cho U, Kim JH, et al. Cancer Res Treat. 2019;51(3): 1144-55.

Genomic landscape of ovarian clear cell carcinoma via whole exome sequencing.
Kim SI, Lee JW, Lee M, Kim HS, Chung HH, Kim JW, et al. Gynecol Oncol. 2018;148(2):375-82.

Impact of Adjuvant Radiotherapy on Survival Outcomes in Intermediate-risk, Early-stage Cervical Cancer: Analyses Regarding Surgical Approach of Radical Hysterectomy

Authors: Se Ik Kim, MD1, Tae Hun Kim, MD 2, Maria Lee, MD, PhD1, Jae-Weon Kim, MD, PhD1,*
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Introduction:
This study aimed to investigate the impact of adjuvant radiotherapy (RT) on survival outcomes in patients with intermediate-risk, early-stage cervical cancer who underwent radical hysterectomy (RH).
Materials and Methods:
From the cervical cancer cohorts of two tertiary hospitals, patients with 2009 FIGO stage IB-IIA who underwent primary RH between 2010 and 2018 were identified. Patients with intermediate-risk factors that met the Sedlis criteria were included. Survival outcomes were compared between the patients who received adjuvant RT (study group; n=53) and those who did not receive adjuvant treatment (control group; n=30).
Results:
Compared to the control group, the study group showed significantly better recurrence-free survival (RFS; 5-year survival rate, 85.6% vs. 61.0%; P=0.009). In multivariate analysis, adjuvant RT was associated with a significantly lower risk of disease recurrence (adjusted HR, 0.241; 95% CI, 0.082–0.709; P=0.010). In a subgroup that underwent open RH (n=33), adjuvant RT showed a trend toward improved RFS with borderline statistical significance (adjusted HR, 0.098; 95% CI, 0.009–1.027; P=0.053). However, in a subgroup of minimally invasive surgery (n=50), adjuvant RT did not improve RFS.
Conclusion:
Implementation of adjuvant RT significantly reduced the disease recurrence rate in patients with intermediate-risk, stage IB-IIA cervical cancer treated primarily with surgery. Survival benefit from adjuvant RT differed according to the surgical approach.

Young Doctor Session/Oral Presentation

Alka Dahiya

Current Position:
3rd Year MCh resident (Post graduate)
Department of Gynecologic Oncology
Christian Medical College, Vellore.
India

Education:
Bachelor of Medicine, Bachelor of Surgery (MBBS)
MS Obstetrics and Gynecology (2014-2017)
MCh Gynecologic Oncology (2018- till date)

Professional Experiences (Top 5):
1. 3 year training in Obstetrics and Gynecology (Post graduation, 2014-2017)
2. 1 year senior residency in Obstetrics and Gynecology (2017-2018)
3. 2 year training in Gynecologic Oncology (2018- till date)
4. Oral paper presentation on 'Endometriosis and malignancy: its intriguing relationship' in AGOICON 2019
5. One publication in IJRCOG.

Primary Peritoneal Carcinoma and Ovarian Carcinoma : Similar Yet Different

Alka Dahiya, Ajit Sebastian, Abraham Peedicayil , Vinotha Thomas , Anitha Thomas, Rachel G Chandy

Background:
Primary peritoneal carcinoma(PPC) is an aggressive epithelial malignancy placed with ovarian and fallopian tube cancer under a broader spectrum of disease- Mullerian carcinoma, sharing common heritage. First described by Swerdlow in 1959, PPC is still considered an enigma with a debatable origin and is one of the most challenging malignancies to treat. Our study aims at developing a better understanding of this entity through a detailed comparative analysis of clinicopathological characteristics and survival outcomes of PPC with the histologically and often clinically indistinguishable advanced serous ovarian cancer (OC).
Methods and Results:
Prospectively maintained clinical database at Christian Medical College , Vellore was reviewed (01 January 2010 to 31 May 2020). A retrospective comparative analysis was done between PPC (n=69) and OC (n=151) patients having high grade serous stage III/ IV disease. Independent T-test and Chi-square test were used as appropriate. Statistical significance was placed at $p<0.05$. Progression-free survival (PFS) and overall survival (OS) was calculated using Kaplan Meir curves. Multivariate Cox regression model was used to assess the effect of independent variables on survival.
Patients with PPC had a higher rate of parity (p=0.049), previous hysterectomy (p=0.049), poorer performance status (p=0.000), shorter symptom to treatment interval (p=0.028), larger ascites (p=0.000), higher rate of interval cytoreduction (p=0.00) and lower surgical complexity score (p=0.00). The median PFS was 19 months in both PPC and OC patients (p=0.862). The median OS for PPC was 44 months vs 48 months in OC (HR,OC: 0.80, p=0.416). In multivariate Cox regression analysis suboptimal cytoreduction (HR 2.51, p=0.001) had a significant impact on OS while a shorter PFS was associated with OC (HR 1.67, p=0.028), IDS (HR PDS-0.44, p=0.002) and suboptimal debulking (HR 1.86, p=0.007).
When matched for treatment modality , PPC patients who underwent (IDS) had a superior PFS (HR OC: 1.66, P=0.032) than the OC IDS subgroup. In multivariate Cox regression analysis, Ovarian cancer (HR 1.748, P=0.020) and suboptimal cytoreduction (HR 2.060, p=0.006) remained significantly associated with a higher recurrence rate while residual disease (HR 3.338, P=0.001) and lack of adjuvant chemotherapy (HR 3.411, P=0.034) lead to a shorter OS.
Conclusion:
We found some significant differences in the clinicopathological profiles of PPC and OC. Though insignificant PPC had an inferior overall survival congruous with existing evidence. Data on PPC continues to mature and its possibility of being a distinct disease entity with multifocal origin cannot be ruled out.

Young Doctor Session/Oral Presentation

Anusha Kamath

Current Position:
Assistant Professor
Department of Obstetrics & Gynecology
All India Institute of Medical Sciences Nagpur.

Education:

- Graduated from Smt N.H.L Municipal Medical College, Ahmedabad in 2011.
- Passed Master of Surgery (Obstetrics & Gynaecology)from B.J Medical College, Ahmedabad (Civil Hospital Ahmedabad) in 2014.
- Underwent one year training at Gujarat Cancer & Research Institute

Professional Experiences (Top 5):

- Senior resident in GMERS Medical College, Civil Hospital, Gandhinagar (July-December2014)
- Assistant Professor at Gujarat Cancer and Research Institute,
- Ahmedabad (February2015-Present)
- IAPC certified training in Pain and Palliative care
- Assistant Professor at NKP Salve Medical College, Nagpur(Feb-March 2019)
- Assistant Professor, Department of Obstetrics & Gynecology, AIIMS Nagpur (July 2019-Present)

HPV INFECTION AND VACCINE: Knowledge, Attitude And Perception Among Medical Graduates In India

Authors: Dr Anusha Kamath(Assistant Professor), Dr Anita Yadav (Associate Professor), Dr Piyush Bansal (Assistant Professor), Dr Jyoti Baghel (Senior resident), Dr Shuchita Mundle (Additional Professor)
Affiliation: All authors are affiliated with the All India Institute of Medical Sciences, Nagpur

Background:
Developing and under-developed countries bearing more than 80% of the global burden of cervical cancer. It can largely be prevented by prevention and treatment of sexually transmitted infections such as HIV and Human Papilloma Virus (HPV). Both condom usage and protective inoculation (HPV vaccine) may be considered as primary prevention since cervical cancer screening only detects the pre-invasive lesions. At present, two vaccines licensed globally are available in India; a quadrivalent vaccine, Gardasil marketed by Merck and a bivalent vaccine, Cervarix marketed by Glaxo Smith Kline. The WHO recommends the HPV vaccine as the main approach for the prevention of cervical cancer, to be administered prior to first sexual contact especially in adolescent girls. The most important step in creating an effective coverage program is to develop accurate forms of communication and information about HPV so that people understand the importance of prevention and problems associated with this virus. Since the vaccine is most effective when administered prior to sexual contact, it is essential to inform the youth about the availability of this vaccine. Most of the studies for knowledge, awareness and practice of HPV infection and vaccination are aimed at women in the community.
This study attempts to assess the awareness among medical graduates studying at various institutions spread over Southern and Central India.
Materials and methods:
The current study is designed as a cross sectional observational study for final year medical graduates at various medical colleges across India. The recruitment of participants was done by purposive snowballing technique over a period of two months. The data collection was done through an online questionnaire generated with the help of Google Forms.
Results:
Mean age of the participants was 21.73 (+_1.33) years with a range between 20 and 24 years (n=354). 196 (55.4%) participants knew that cervical cancer is the second most common cancer among women in India and 83.6% knew all the risk factors for cervical cancer. Approximately 51.6% were aware of the conditions that may be associated with HPV and 69.2% were aware of the various methods of protection from HPV infection. Knowledge about the types of vaccine available in India and the dosage schedule was poor.
Conclusion:
Medical schools should modify their curricula to include teaching methods aimed at improving HPV vaccination and its related information. There is a need for a well-designed HPV education program integrated into a national cervical cancer prevention and control program for greater uptake of vaccination.

Young Doctor Session/Oral Presentation

Rahul Deepak Modi

Current Position:
Asst. Professor – Gynaecological Oncology, AIIMS Rishikesh, India

Education:
MBBS, MD Obstetrics & Gynaecology (PGIMER,Chandigarh)
Fellow Gynaecological Oncology (GCRI, Ahmedabad)
M.Ch Gynaecological Oncology (Tata Memorial Hospital, Mumbai)

Professional Experiences (Top 5):
- Prof. Shingo Fujii Travel Grant Award for IGCS 2019
- Prof. Shashikant Lele International Gynecological Oncological Fellowship
- JRD Tata Award for academic excellence
- Exceptional service Award – Bombay Leprosy Project

Insight into 'Gynaecological Oncology' Training in India: Perspectives of In-Training Candidates

Authors: Modi Rahul, Tiwari Parmita, Verma Pallavi
Affiliation: Gynaecological Oncology, AIIMS Rishikesh, India

Background:
In the last decade, gynaecological oncology has seen an enormous growth and practice changing reforms after its inception almost four decades ago. Various societies across the globe have developed structured training program for trainees in gynaecological oncology. India had started its structured training program of 3 years since 2011 although fellowships did exist prior. There are more than 15 centres in India, averagely training 1 to 2 candidates per year which includes both government and private sector. Training varies from region to region across the country depending on factors such as availability of advanced training facilities, mentorship, duration of course and cancer burden. We aimed to study trainee profile, satisfaction levels and future expectations of in-training candidates across India. To our knowledge, this is the only study from Asian subcontinent in this context.
Methods:
We developed, validated and administered a cross-sectional web-based (Google forms) survey questionnaire to all the trainees in gynaecological oncology across India listed in our directory. Questionnaire was sent to them in the first week of August, 2020. Data collected was analysed using Google sheets. Results were expressed as percentages of total responses received excluding unattended responses. Inferences were drawn from the content- specific responses.
Results:
Thirty-nine in-training candidates across the country responded, of which majority (71.8%) were females. Most of the trainees (84%) were from university/teaching hospital run dedicated cancer care centres which see a high burden of cases. Almost two-thirds (64.1%) were extremely satisfied with their training while 28% were just satisfied. Most of the trainees were satisfied with the surgical exposure (64%) and academic activities (61%) at their centres. Respondents had a special interest in cytoreductive surgeries (CRS) - 41% and robotics - 28% while 59% and 85% suggested for a dedicated fellowship respectively in same post completion of training. Only 5% showed special interest in preventive oncology and related advances. Unanimously (97%) suggested that trainees should be adequately exposed to gynaecological oncology in their post-graduate training of obstetrics and gynaecology while 92% suggested harmonisation of training curriculum across the country.
Conclusion:
Majority of trainees expressed satisfaction although there is a greater need for uniformification of training curriculum in gynaecological oncology in India. An interesting finding of inclination of in-training candidates towards cytoreductive surgeries and robotics emerged, inferring building in future - high quality training standards in these complex surgeries with needed resources and infrastructure. Special emphasis should be laid on : for creating awareness on importance and building an interest in preventive oncology services among trainees in India.

Young Doctor Session/Oral Presentation

Rahul Deepak Modi

Current Position:
Asst. Professor – Gynaecological Oncology, AIIMS Rishikesh, India

Education:
MBBS, MD Obstetrics & Gynaecology (PGIMER,Chandigarh)
Fellow Gynaecological Oncology (GCRI, Ahmedabad)
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Professional Experiences (Top 5):
- Prof. Shingo Fujii Travel Grant Award for IGCS 2019
- Prof. Shashikant Lele International Gynecological Oncological Fellowship
- JRD Tata Award for academic excellence
- Exceptional service Award – Bombay Leprosy Project

Experience of Virtual Learning in the Times of Pandemic in India and it's Future Perspectives : Observations from 'Gynaecological Oncology' Trainee Survey

Authors: Modi Rahul, Verma Pallavi, Tiwari Parmita
Affiliation: Gynaecological Oncology, AIIMS Rishikesh, India

Background:
In these unprecedented times of COVID-19 pandemic, surgical education and training has been severely disrupted. Surgical skills are prone to decay. Promoting virtual learning and simulation based platforms can expand training opportunities beyond the walls of hospital. Such measures may mitigate the diminished surgical and clinical skills caused by disruption of training. The foreseeable goal should be to build resilient training standards resistant to disruption as one caused by COVID 19. We aimed to study the perceptions of in-training candidates in gynaecological oncology in India regarding their present experience of virtual learning and future perspectives to incorporate these training modalities in standard academic curricula.
Methods:
We developed and validated a survey questionnaire using a three member expert team. The survey was administered through a cross-sectional web- based (Google forms) platform to all the trainees in gynaecological oncology across India listed in our directory in the first week of August, 2020. Data collected was analysed using Google sheets. Results were expressed as percentages of total responses received excluding unattended responses. Inferences were drawn from the content-specific responses.
Results:
Thirty-seven trainees across the country responded. Majority (97.2%) of the trainees conceded that COVID-19 had significantly impacted their training, of which 78% suggested that hands-on surgical training was the most affected, 15% perceived an impact on academic training and only 7% suggested an impact on clinical trial learning. All respondents were continuing academic training through webinars, online case presentations and tumour boards. None of the responses favored virtual learning over or equivalent to bedside clinics and face to face interactions. Almost three- fourths (77%) of trainees suggested continuing online platforms in post- COVID times. Presently only 3 of 16 centres from responses received had skill lab and simulation training facilities. Virtual anatomical learning facility was available only in a single centre across the country. Cadaveric dissection (89%) was a preferred choice over simulation modules by in- training candidates to prevent skill decay. Telemedicine clinics were run by 14 of 16 centres in the country but only 54% of trainees were satisfied with telemedicine services.
Conclusion:
A positive response for online teaching modules was received among trainees in gynaecological oncology in India although face to face learning and bed side clinics were more valued. There was a modest preference for simulation based skill training while cadaveric dissection lab training was overwhelmingly accepted. Increasing preference for online platforms was seen in the survey implying greater need for further improvement in web based interactive services ensuring a smoother transition.

Ie-Ming Shih

Current Position:
- Richard W. TeLinde Distinguished Professor
- Co-Director, Women's Malignancy Program, Sidney Kimmel Comprehensive Cancer Center

Education:

Year	Degree	Institution	Discipline
1981-1988	M.D.	Taipei Medical University	Medicine
1989- 1993	Ph.D.	University of Pennsylvania	Biomedical Science (pathology)
1994-1997	Resident	Johns Hopkins Hospital	Anatomic Pathology
1997-1998	Clinical Fellow	Johns Hopkins Hospital	Gynecologic Pathology
1998-2000	Res. Fellow	Johns Hopkins Medicine	Molecular Cancer Genetics

Professional Experiences (Top 5):
- Editorial Board, the WHO Classification of Tumours (Female genital tumours) 5th Edition (2020)
- Principal Investigator, NIH/NCI Special Program of Research Excellence of ovarian cancer
- Director, Gynecologic Disease Research Program, Johns Hopkins University School of Medicine
- Attending pathologist in gynecologic pathology expertise
- Publish more than 360 peer reviewed papers in *NEJM, Cancer Cell, PNAS, Science, Lancet Oncology, Nature, and Nature Medicine* with an H-index > 100, citations > 40,000.

Research website: www.gynecologycancer.org

The Origin of Ovarian Cancer Species and Precancerous Landscape

Ie-Ming Shih

Unlike other human cancers, in which all primary tumors arise de novo, ovarian epithelial cancers are primarily imported from either endometrial or fallopian tube epithelium. The prevailing paradigm in the genesis of high-grade serous carcinoma (HGSC), the most common ovarian cancer, posits development in fallopian tubes through stepwise tumor progression. In recent years, progress has been made not only in gathering terabytes of omics data but also in detailing the histologic-molecular correlations required to look into and make sense of the tissue origin of HGSC. This emerging paradigm is changing many facets of ovarian cancer research and routine gynecology practice. The precancerous landscape in fallopian tubes contains multiple concurrent precursor lesions including serous tubal intraepithelial carcinoma (STIC), with genetic heterogeneity providing a platform for HGSC evolution. Mathematical models imply that a prolonged time (decades) elapses from appearance of a *TP53* mutation, the earliest known molecular alteration, to appearance of a STIC, followed by a shorter span (6 years) for progression to a HGSC. Genetic predisposition accelerates the trajectory, but this time line may allow for early diagnosis of HGSC and STIC, reasonably followed by an intention-to-cure surgery. In this presentation, I will discuss the recent advances of this tubal paradigm and its biological and clinical implications alongside the promise and challenge of studying precancerous lesions of HGSC.

Note: The content of this presentation in part can be downloaded from: https://doi.org/10.1016/j.ajpath.2020.09.006

Chien-Feng Li

Current Position:
- Chair, Department of Pathology, Chi Mei Medical Center, Taiwan
- Joint-Appointment Investigator, National Institute of Cancer Research, National Health Research Institutes

Education:
- Kaohsiung Medical University, Kaohsiung, Taiwan M.D. 1995-2002 Medicine
- National Sun Yat-sen University, Kaohsiung, Taiwan Ph.D. 2009-2012 Biomedical Sciences

Professional Experiences (Top 5):
- Joint-Appointment Professor, Institute of Medical Science and Technology, National Sun Yat-sen University
- Professor, Department of Biotechnology, Southern Taiwan University of Science and Technology, Taiwan
- Joint-Appointment Associate Investigator, National Institute of Cancer Research, National Health Research Institutes, Taiwan

Identification of BRCAness in clinical practice: genes, phenotypes, and cases

Chien-Feng Li

DNA double strand breaks (DSB) are the most cytotoxic DNA lesions. DSB triggers chromosomal aberration and cell death if repair machinery can not be activated. The ability to restore DSBs depends on the function of the homologous recombination repair (HR) system, which copies the respective undamaged, homologous DNA of the sister chromatid to reconstruct the corrupted double strand during S and G2 phase. Of note, the HR status of tumors is relevant for treatment selection, as its defect predicts sensitivity to platinum drugs and PARP inhibitors (PARPi). Accordingly, testing for aberrations of HR repair as a predictive biomarker of therapy response has become an area of particular clinical interest. The availability of PARPi raises overall awareness and an increasing availability of BRCA1/2 genetic testing as well as those genes involving HR. While few if any testing has been developed to evaluate HR status in cancer which significantly impairs the its accessibility. Furthermore, little is known about the HR deficiency status in Taiwanese high-grade serous ovarian cancer (HGSOC). We thus will not only introduce the concepts of genetic testing in the present talk but will also share the prevalence of BRCA1/2 and other HR genes mutation as well as HR deficiency in Taiwanese HGSOC.

Hung-Hsueh Chou

Current Position:
Attending physician, Division of gynecologic oncology, Department of Ob/Gyn, Chang Gung Memorial Hospital

Education:
M.D. Department of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan

Professional Experiences (Top 5):
1. Attending physician, Division of gynecologic oncology, Department of Ob/Gyn, Chang Gung Memorial Hospital
2. Associated Professor, Chang Gung Medical School, Chang Gung University
3. Member of Standing Committee, Taiwanese Association of Gyncological oncologist
4. Member of Committee of Postgraduate Training affair

Optimize the chemotherapy in platinum-sensitive recurrent ovarian cancer and real world data in Taiwan

Hung-Hsueh Chou

Worldwide, ovarian cancer is the sixth most common cancer and the seventh most common cause of cancer deaths in women. At the time of presentation, approximately 70% of women have advanced disease. Despite standard treatment of initial debulking surgery followed by chemotherapy, most patients relapse after achieving a complete clinical response. Disease that responds to first-line therapy but relapses ≥ 6 months after completion of initial platinum-based therapy is considered platinum sensitive. Chemotherapy re-treatment is an important aspect in the overall management of patients with platinum-sensitive recurrent ovarian cancer (ROC).

In patients with recurrent ovarian cancer, the ICON4/AGO-OVAR2.2 trial showed superior efficacy with a platinum–paclitaxel doublet versus platinum alone, establishing combination chemotherapy in this setting. Similarly, the AGO-OVAR2.5 trial showed significantly longer progression-free survival with a carboplatin–gemcitabine doublet versus carboplatin alone. A meta-analysis of individual patient data from four randomized trials confirmed the role of platinum doublets in this setting, showing improved progression-free survival and overall survival versus single-agent platinum across all patient subgroups.

Subsequent randomized phase 3 trials have compared different chemotherapy doublets, including the CALYPSO/AGO-OVAR2.9 trial, which showed significantly longer progression-free survival with a carboplatin–pegylated liposomal doxorubicin doublet versus carboplatin–paclitaxel, without impairing quality of life. The carboplatin–pegylated liposomal doxorubicin regimen has become widely used in recurrent ovarian cancer because of its more favorable therapeutic index (particularly the lower incidences of alopecia, hypersensitivity reactions, and sensory neuropathy) and dosing schedule.

Antiangiogenic strategies combined with chemotherapy represent an important development in systemic therapy for ovarian cancer. Several antiangiogenic agents have shown efficacy in platinum-sensitive recurrent ovarian cancer. The latest phase 3 ENGOT-OV18 trial showed that, for women with recurrent ovarian cancer eligible for platinum re-treatment, a carboplatin–pegylated liposomal doxorubicin-bevacizumab experimental regimen led to longer progression-free survival than the carboplatin–gemcitabine–bevacizumab standard regimen established in the OCEANS trial. To our knowledge, this is the first phase 3 trial comparing two bevacizumab-containing regimens in recurrent ovarian cancer. Furthermore, overall survival was significantly improved with pegylated liposomal doxorubicin containing experimental therapy, with an increase in median overall survival of more than 4 months; these results suggest that carboplatin–pegylated liposomal doxorubicin–bevacizumab is a new standard regimen for patients with recurrent ovarian cancer suitable for platinum-based and antiangiogenic treatment.

Mikio Mikami

Current Position:
Professor, Department of Obstetrics and Gynecology, Tokai University School of Medicine, Isehara, Kanagawa, Japan

Education:
1984 M.D., Keio University, School of Medicine
1991 Ph.D., Keio University, School of Medicine

Professional Experiences (Top 5):
1991-1992 Reseach Fellow, La Jolla Cancer Research Foundation (USA)
(present Sanford-Burnham Medical Research Institute)
1995-1997 Fellow, Department of Obstetrics and Gynecology, Keio University Hospital
1998-2005 Chief Physician,
Department of Obstetrics and Gynecology, National Hospital Organization Saitama National Hospital
2003-2006 Visiting Associate Professor, Keio University School of Medicine
2006-Professor, Department of Obstetrics and Gynecology, Tokai University School of Medicine

Professional Organizations
2006- Director, Japan Society of Gynecologic Oncology (JSGO)
2008- Director, Japan Gynecologic Oncology Group (JGOG)
2014- Director, Japan Society of Gynecologic and Obstetric and Minimal Invasive Therapy (JSGOE)
2015- Director, Japan Society of Obstetrics and Gynecology (JSOG)
2016- Chairman of Guideline committee of JSGO
2019- Chair of Ethical Committee of JSOG

Update in the treatment for uterine sarcoma

Mikio Mikami

The Fourth Edition of the Japanese Guidelines for Treatment of Uterine Body Neoplasm was published in 2018(1) (J Gynecol Oncol. 2020 Jan;31(1):e18). This guideline includes 9 chapters: The title of chapter 7 is Treatment of uterine carcinosarcoma and uterine sarcoma. This chapter includes overviews and clinical questions, and recommendations on the treatment for uterine sarcoma (CQ38-40). Clinical Questions on Uterine sarcoma in this chapter are as follows;

CQ38. What surgical methods and postoperative adjuvant therapy are recommended for uterine leiomyosarcoma?

CQ39. What surgical methods and adjuvant therapy are recommended for endometrial stromal sarcoma (ESS)?

CQ40. What treatments are recommended for unresectable advanced or recurrent ESS/ leiomyosarcoma?

In this presentation, recent information on the diagnosis and treatment for uterine sarcoma will be updated in addition to clinical questions and recommendations described in our Japanese guideline on uterine sarcoma (1-3).

Reference

1. J Gynecol Oncol. 2020 Jan;31(1):e18 https://doi. org/10.3802/jgo.2020.31.e18
2. NCCN Guidelines® Uterine neoplasma Version1.2021-October 20,2020
3. ESGO e-Academy Masterclass in Gynecological Oncology

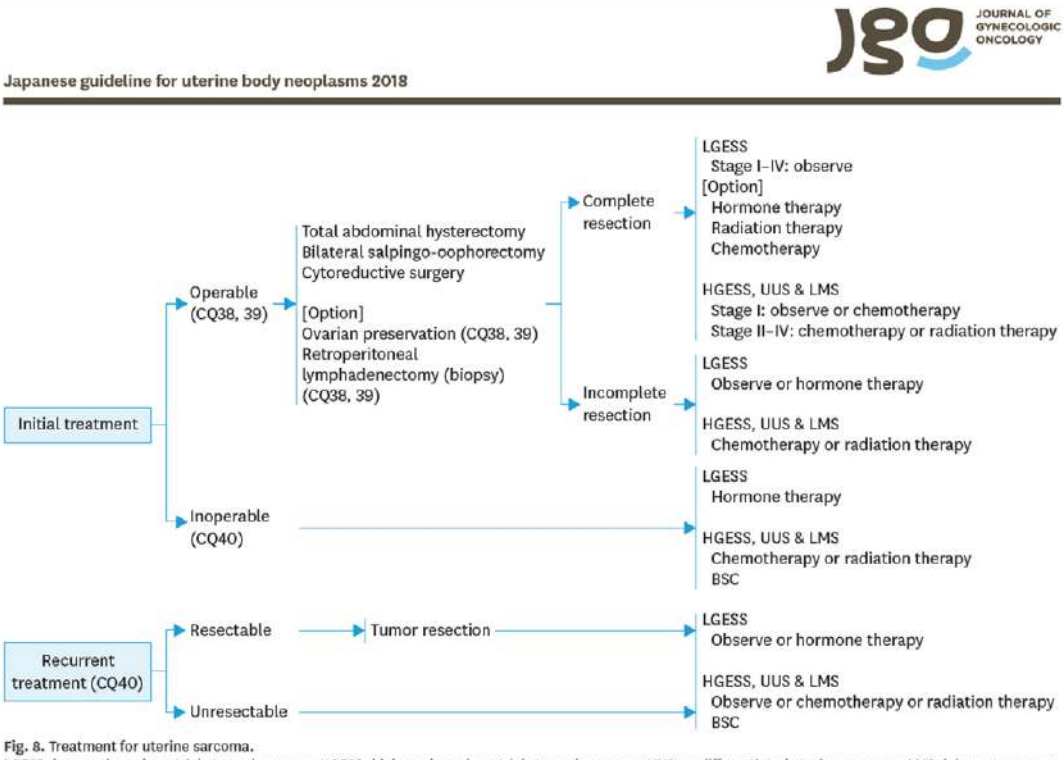

Fig. 8. Treatment for uterine sarcoma.
LGESS, low grade endometrial stromal sarcoma HGESS, high grade endometrial stromal sarcoma; UUS, undifferentiated uterine sarcoma; LMS, leiomyosarcoma; BSC, best supportive care.

Kuan-Gen Huang

Current Position:
President of Taiwan Association for Minimal Invasive Gynecology

Education:
Taipei Medical College, graduated in 1987

Professional Experiences (Top 5):
Director of Gynecological Oncology, Chang Gung Memorial Hospital, Taiwan (2014-2020)
President of Taiwan Association for Minimal Invasive Gynecology (2018-2020)

Laparoscopic Hyperthermic Intraperitoneal Chemotherapy

Kuan-Gen Huang

Minimally invasive surgery is increasing the role of treatment in the gastrointestinal and gynecological cancer patients. Laparoscopy has reduced morbidity, faster recovery, and similar oncologic outcomes when compared with laparotomy. Cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) was developed as the treatment of primary or secondary peritoneal malignancies.

The gold standard of cytoreductive surgery is the removal of gross tumours and peritoneum. The peritoneal cancer index (PCI) was used to score the extent of peritoneal involvement at the time of surgery, defined as PCI of 10 or less. The completeness of cytoreduction (CC) score was used to classify the resection status of the peritonectomy patients. The optimal cytoreduction is CC score 0 and 1, whereas CC score 2 and 3 are designated as incomplete cytoreduction. HIPEC was performed at 41.5-43℃ .

Recently, the laparoscopic CRS combined with HIPEC is feasible and safe in the treatment of gastrointestinal and gynecological cancer with the peritoneal cancer index (PCI) of 10 or less. Gynecologic cancer does not have data of the laparoscopic randomized control trial studying of CRS with HIPEC but there is promising future depends on previously limited experience.

Sarikapan Wilailak

Current Position:
- Professor of Obstetrics & Gynecology
- Deputy Dean for Academics & Culture, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

Education:

1982 B.Sc. (Medical Science), Faculty of Science, Chulalongkorn University, Bangkok, Thailand
1984 M.D., Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand
1988 Graduate Diploma in Clinical Science (OB. & GYN), Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand
1990 Diploma Thai Board of Obstetrics and Gynecology
1994 Certificate, Visiting Fellow in Gynecologic Oncology at Johns Hopkins Hospital, Maryland, U.S.A.
1995 Diploma Thai Sub-Board of Gynecologic Oncology
2017 Diploma, National Defence College, The National Defence Course Class 59

Professional Experiences (Top 5):
- Committee Chair of Oncolgy, Asia & Oceania Federation of Obstetrics and Gynaecology (AOFOG)
- International Federation of Obstetrics and gynecology (FIGO) Committee for Gynaecologic Oncology
- Council Member, Asian Society of Gynecologic Oncology (ASGO) and Asian Gynecologic Oncology Group (AGOG)
- Past President of the Thai Gynecologic Cancer Society (TGCS)
- Editorial Advisor of the Journal of Gynecologic Oncology (JGO)

Cancer During Pregnancy: A Big Challenge

Sarikapan Wilailak

Cancer during pregnancy is a rare event, occurring approximately once per 1,000 pregnancies annually (0.07% to 0.1% of all malignant tumors). The most common malignancies associated with pregnancy are melanoma, breast cancer, cervical cancer, lymphomas and leukemias respectively.

Physiological changes during pregnancy, including hormonal changes, immunological suppression and increased permeability and vascularization of pregnancy, effect the biology of cancer that occurs during pregnancy. The identification of cancer during pregnancy is challenging. Physiological changes that occur during pregnancy can delay proper investigation of an underlying neoplasm. Signs and symptoms commonly seen in cancer may overlap and be masked by physiological changes that occur during pregnancy. Therefore, caretakers might easily attribute the symptoms of an undiagnosed cancer to pregnancy itself and do not proceed with further investigation when needed. In addition, concerns about the exposure of the fetus to inherent risks of complementary examination, such as ionizing radiation, contrasts and surgical/anesthetic procedures, might make physicians less prone to immediately proceed with the investigation of those symptoms. Commonly used tumor markers CA 15-3, SCC, CA 125 and AFP levels are increased in pregnancy and consequently are not reliable. There is robust evidence regarding the safety of surgical procedures and use of anesthetics in pregnant women. The risk of maternal death is not increased, nor is it associated with birth defects. Still, the risk of miscarriage is slightly elevated (1-2%), especially during the first trimester. There is also an increase risk in the likelihood of low birth weight and premature delivery (1.5-2 times relative risk). Radiotherapy is not routinely recommended during pregnancy and should be postponed until after childbirth whenever possible. Most chemotherapeutic agents have low molecular weight and cross the placenta. It should be avoided during the first trimester. Chemotherapy during the second and third trimester is considered relatively safe. The physiological changes that occur during pregnancy such as hypervolemia, enhanced renal/hepatic elimination and reduced albumin levels may interfere with the pharmacokinetics of the chemotherapeutics. Cancer in pregnancy is also considered as an emotional challenge for pregnant women and their family. The pregnancy period is characterized by psychological stress of uncertainty about the mothers' health and that of the baby.

To achieve the best possible outcomes of both mother and baby, even though this condition is rare, we must beware that multidisciplinary care during and after pregnancy is crucial.

Young Doctor Session/Oral Presentation

Roopjit Kaur Sahi

Current Position:
Resident (PGJR III), Department of Obstetrics and Gynecology, GMCH, Chandigarh

Education:

- Post Graduate Medical Education in Obstetrics & Gynecology — May, 2018 - present
  Government Medical College and Hospital, Chandigarh, India
- MD (Bachelor of Medicine and Bachelor of Surgery) — July 2011- Mar 2017
  Government Medical College and Hospital, Chandigarh, India
- High School (Grade 11,12) — April 2009- Mar 2011
  Sacred Heart Senior Secondary School, Chandigarh, India
- High School (Grade 9,10) — Mar 2006 - Mar 2009
  St. Joseph's Convent School, Jalandhar, India

Professional Experiences:

- Registered Medical Practitioner — April 2017-Present
  Punjab Medical Council
- Medical Officer — April 2017- Mar 2018
  Global Hospital, Jalandhar
- Internship — Jan 2016- Mar 2017
  Government Medical College and Hospital, Chandigarh.
- Clinical Elective - Pediatric Nephrology — Oct 2016- Nov 2016
  Massachusetts General Hospital, Harvard Medical College, Boston

Characterizing Adnexal Masses Using IOTA Logistic Regression Models, RMI and IOTA ADNEX Ultrasound Models: Experience of a Tertiary Care Centre in India

Authors: Sahi R, Goel B, Sehgal A
Affiliation: Dept of Obstetrics and Gynecology, GMCH, Chandigarh, India

Introduction:
Accurate assessment of an adnexal mass, whether benign or malignant, is important to decide the course of its clinical management. Ultrasonography by an expert examiner (subjective assessment) has been the best method to pre-operatively differentiate benign from malignant adnexal masses. However, expertise for assessment of an adnexal mass may not be available at all centers and prediction of ultrasound findings could vary between different examiners. Certain scoring systems have been developed with an effort to make ultrasound examination more objective. We have characterized the functioning of certain such models as RMI (Risk of Malignancy Index), IOTA Logistic regression models and IOTA ADNEX with this research study.
Material & Method:
It is a cross-sectional diagnostic study which used prospectively collected clinical and ultrasound data. Women aged between 14-75 years with an adnexal mass were included. Women with unilocular thin-walled cyst not requiring surgical intervention, women diagnosed with endometriosis, PID and ectopic pregnancy and women not consenting to be a part of the study were excluded from the study.
All women enrolled in the study underwent a transvaginal/ trans-abdominal ultrasound. The examiner analyzed the mass using morphological and blood flow variables, keeping in mind the ultrasound terms and definitions defined for adnexal masses by IOTA. The reference standard was the histopathological diagnosis, post-surgery.
Performance of the models was determined using measures of discrimination and calibration. Discriminatory performance was calculated using ROC curves and AUC. Diagnostic performance was assessed using sensitivity, specificity, PPV, NPV and accuracy with their corresponding 95% confidence intervals. A p-value <0.05 was considered statistically significant.
Result:
Of the 89 patients enrolled, 25 (28%) were malignant, including 5 (5.7%) borderline masses, 11 (12.3%) primary invasive masses, 9 (10%) metastatic masses and 64 (72%) were benign.
Predictive parameters of LR1: At cut-off value 12.15, sensitivity: 0.88, specificity:0.968, PPV: 0.92, NPV: 0.944, Accuracy: 0.938
LR2: At cut-off value 6.75, sensitivity: 0.92, specificity: 0.91, PPV: 0.79, NPV: 0.96, Accuracy: 0.91
RMI: At cut-off value 97.8, sensitivity: 0.84, specificity: 0.94, PPV: 0.84, NPV: 0.94, Accuracy: 0.90
ADNEX: At cut-off value13.8, sensitivity: 0.88, specificity: 0.96, PPV: 0.88, NPV: 0.967, Accuracy: 0.91
Conclusions:
IOTA ADNEX has a good diagnostic performance. Although it does sub-classify the malignant mass yet it does not have a good predictive value while differentiating borderline from early-stage ovarian cancer. LR2 and ADNEX had the best screening results amongst all models.
These models could be highly useful in non-oncology referral centers or centers lacking expert ultrasound examiners to assess adnexal masses.

Young Doctor Session/Oral Presentation

Wen-Hsuan Lin

Current Position:
The 4th year resident of department of Obstetrics& Gynecology in MacKay Memorial Hospital

Education:
M.D., department of medicine, Mackay medical college

Retrospective Analysis of Malignant Ovarian Germ Cell Tumor in MMH

Authors: Lin Wen-Hsuan
Affiliation: Chang Chih Long

Background:
To compare survival effect of the different treatment of malignant ovarian germ cell tumor. Pediatrician and Gynecologist have different management for malignant ovarian germ cell tumor, include staging system, operation methods, the criteria to perform chemotherapy and chemotherapy regimen.
Methods and Results:
Material and methods: A retrospective review of medical records, include clinical and pathological data of the patient of malignant germ cell tumor in Mackay Memorial Hospital between 1997~2017 were performed. We analyzed distribution of histology, stage, the treatment outcomes in different surgical treatment and either to perform chemotherapy after surgery or not. We also re-staged the patients in pediatric group from COG stage system to FIGO stage system and analyze the progression free survival rate in different staging system. Treatment outcomes were analyzed by progression free survival rate, using Kaplan-Meier method.
Results:
In total, we analyzed 87 patients with malignant germ cell tumor. Of these patients, 67 cases are managed by Gynecologist and 20 cases by Pediatrician. The median age at diagnosis was 21 years (2-47). The most common type of histology is immature teratoma (47.1%, n=41). The progression free survival rate in USO group, BSO, ovarian cystectomy, fertility sparing staging operation and complete staging operation were 88%, 100%, 100%, 88.6% and 100 % respectively (p=0.747, compare USO and fertility sparing staging operation). Progression free survival rate in BEP (bleomycin + etoposide + cisplatin) was 97.8% and in JEB (bleomycin + etoposide + carboplatin) was 77.8% (p= 0.0076).
Conclusion:
Fertility-sparing staging operation at least is standard surgical methods as guideline recommendation in adults. However, less aggressive surgical methods such as unilateral salpingo-oophorectomy as pediatrician's management have similar survival rate. BEP regimen is an effective first-line chemotherapy and have better survival compare to JEB regimen.

Young Doctor Session/Oral Presentation

Anila, (Tresa) Alukal

Current Position:
Fellowship trainee in Gynecological Oncology

Education:
MBBS, MS (Obstetrics & Gynecology), DNB

Professional Experiences (Top 5):
1. Fellowship trainee in Gynecological Oncology- regional Cancer Centre , Thiruvananthapuram Kerala, India
2. Senior Resident, Government Medical College , Thrissur, Kerala, India
3. MS- Obstetrics & Gynecology-Government Medical College , Thrissur, Kerala, India
4. MBBS-Government Medical College ,Thiruvananthapuram Kerala, India

Significance of LEEP Specimen Dimension in Predicting Margin Positivity and Persistent Disease for CIN

Authors: Anila Tresa Alukal, Rema P, Suchetha S, Dhanya Dinesh, Aleyamma Mathew, Jagathnath Krishna, Thara Somanathan, Sivaranjith J
Affiliation: Dept of Gynecological Oncology, Regional Cancer Centre, Thiruvana

Introduction:
Cervical intraepithelial neoplasia (CIN) is the precursor lesion of cervical cancer. Untreated high-grade CIN significantly increases the risk of developing invasive cancer. Conization is the main treatment. Loop electrosurgical excision procedure (LEEP) is the most common conization method used. The study aims to assess the risk factors associated with positive margin and persistent disease after LEEP for CIN
Material & Method:
A total of 156 patients who underwent LEEP during 2011-2018 included in the study. We analyzed the socio-demographic characteristics, colposcopy details, histopathology, dimensions of LEEP specimen (thickness, length, volume) . Persistent disease was histologically confirmed by repeat LEEP or hysterectomy.
Result:
Margin positivity was seen in 33.3% of patients. Persistent disease was found in 26.2% of patients on repeat LEEP or hysterectomy. There was significant association between margin positivity and swede score of 5 and more, a high-grade lesion on IFCPC score, inner margin involvement, LEEP done in a single pass. The cut off for margin positivity was length of 0.513 cm and thickness of 0.35 cm. Significant association between residual disease and margin positivity, postmenopausal status, swede score of 5 and more, high-grade lesion on IFCPC score, inner margin involvement was observed. The chance of residual disease was less if the cone specimen had minimum length of 0.775 cm and minimum thickness of 0.65 cm.
Conclusions:
Postmenopausal women and inner margin positivity are important predictive factors for margin positivity. Such patients have a high chance of residual disease and should be either kept on close follow up or consider a repeat procedure.

Young Doctor Session/Oral Presentation

Anila, (Tresa) Alukal

Current Position:
Fellowship trainee in Gynecological Oncology

Education:
MBBS, MS (Obstetrics & Gynecology), DNB

Professional Experiences (Top 5):
1. Fellowship trainee in Gynecological Oncology- regional Cancer Centre , Thiruvananthapuram Kerala, India
2. Senior Resident, Government Medical College , Thrissur, Kerala, India
3. MS- Obstetrics & Gynecology-Government Medical College , Thrissur, Kerala, India
4. MBBS-Government Medical College ,Thiruvananthapuram Kerala, India

CLINICAL PROFILE AND SURVIVAL OUTCOME OF ENDOMETRIAL CANCER WITH P 53 MUTATION

Authors: Anila Tresa Alukal, Suchetha S, Rema P, Dhanya Dinesh, Sivaranjith J, Sindhu Nair, Aleyamma Mathew, AshwinKumar
Affiliation: Dept of Gynecological Oncology, Regional Cancer Centre, Thiruvana

Introduction:
Molecular markers are important prognostic factors in tumor dissemination and early recurrence of endometrial cancers along with age, stage, histological type, grade, depth of myometrial infiltration, lymphovascular invasion, nodal involvement, cervical involvement. TP53 mutation is an important prognostic factor for both serous and endometrioid cancers. The study aims to compare the clinical profile and overall survival of endometrial cancers with and without TP53 mutation
Material & Method:
63 patients who underwent surgical staging for Carcinoma endometrium were included in the study.TP53 mutation status was determined based on p53 expression by Immunohistochemistry (IHC) as a p53 wild or p53 mutant type. Data analyzed for the clinical profile, p53 mutation status on IHC, histological pattern, tumor grade, stage of the disease, lymph node spread, recurrence pattern, treatment received, two-year disease-free survival and overall survival.
Result:
Recurrence was noted in 12.7% patients after 2 years follow up, of which 75% patients had p53 mutation. Significant association was seen between p53 expression and high grade tumours, cervical involvement, myometrial invasion, adnexal involvement. The two-year overall survival of the p53 wild type was 97.1% and the p53 mutant type was 92%. The two-year- disease-free survival for the p53 wild type was 93.9% and the disease-free survival of the p53 mutant variety was 84.4%. The 2-year disease-free survival for endometrioid carcinoma with p53 wild type was 100% and p53 mutant variety was 86.2% (pvalue 0.033).
Conclusions:
IHC to assess somatic p53 mutation should be done in all endometrial cancers irrespective of their histology. This may help to identify the aggressive tumors, especially among the endometrioid tumors thereby help in planning adjuvant treatment and follow-up.

Young Doctor Session/Oral Presentation

Aswathy G Nath

Current Position:
Senior Resident , Dept Of Gynaecological Oncology

Education:
MBBS, MS (O&G), DNB, FELLOWSHIP IN Gynaecological Oncology

Professional Experiences (Top 5):

1. Senior Resident, Dept Of Gynaecological Oncology, RCC, Thiruvananthapuaram, Since January 2019
2. Fellowship in Gynaecological Oncology, RCC, Thiruvananthapuaram, September 2016 to September 2018
3. Assistant Professor, Dept Of Obsterics & Gynaecolgy, SRMC Medical college, Varkala
4. Clinical associate, Dept Of Obsterics & Gynaecolgy, SUT, Pattom, Thiruvananthapuaram
5. Junior Resident, Dept Of Obsterics & Gynaecolgy, Govt. Medical College, Thiruvananthapuram

Long Term Quality Of Life, Survival Outcome and Complications After Pelvic Exenteration for Gynecological Malignancies

Authors: Dr Aswathy G Nath, Dr Rema P, Dr Suchetha S, Dr Sivarenjith J, Dr Dhanya D, Dr Jagath Krishna
Affiliation: RCC, Thiruvananthapuram

Background: Pelvic exenteration is a radical surgical treatment that removes all organs from a person's pelvic cavity. The procedure leaves the person with a permanent colostomy and urinary diversion. This surgery was initially introduced as a palliative procedure by Brunschwing in 1948. Later exenteration procedure was considered as a therapeutic procedure for recurrent as well as advanced cases of carcinoma cervix, endometrium, vulva and vagina because of improved survival rate associated with procedure. Five year overall survival after pelvic exenteration ranges between 25 to 50 %. Recent developments in cancer trials as well as treatment approach is by giving increased importance to quality of life, so as to increase the number of long term survivors after treatment.

Aims and Objectives:

1. To study functional quality of life in patients after pelvic exenteration for gynaecological malignancies
2. To assess overall and disease free survival as well as immediate and long term morbidity after pelvic exenteration

Methods and Results: Long term quality of life was prospectively assessed during follow up visits (June 2018 to September 2019) with the help of EORTC QLQ C-30 questionnaire and FACIT-CX questionnaire (validated to local language) with adequate permission to use. Survival outcomes and complications were assessed retrospectively. Included 32 patients who underwent pelvic exenteration for gynaecological malignancies, from January 2006 to December 2016. Post-operative complications were graded according to the Clavien Dindo grading. Overall and disease free survival was calculated using Kaplan-Meier method and log-rank test for statistical significance. Medium follow up period was 87 months. 81.25% has adequate follow up to 7 years. Out of 32 patients 13 were alive. 7 year as well as 5 year overall survival was 37.7% with a SE of 8.8%. 5 year disease free survival was 33.2% with a SE of 8.4%. Median OS was 41 months with a SE 9.568 [95% CI 22.24 -59.75].Median DFS was 15 months with a SE of 6.773 [95% CI 1.72- 28.74]. 10 patients had grade2 immediate complications and 7 patients' hade grade3 late complications. Average global health status, role functioning, emotional functioning and physical functioning scores were above 70 for all patients and symptom score was less than 40

Conclusion:

- Even though pelvic exenteration is a morbid and complicated surgery, it is associated with survival outcome of 37.7% at 7 years and the procedure is well tolerated with good QOL
- Proper counselling before surgery regarding major consequences of this radical surgery is important

Young Doctor Session/Oral Presentation

Aswathy G Nath

Current Position:
Senior Resident , Dept Of Gynaecological Oncology

Education:
MBBS, MS (O&G), DNB, FELLOWSHIP IN Gynaecological Oncology

Professional Experiences (Top 5):

1. Senior Resident, Dept Of Gynaecological Oncology, RCC, Thiruvananthapuaram, Since January 2019
2. Fellowship in Gynaecological Oncology, RCC, Thiruvananthapuaram, September 2016 to September 2018
3. Assistant Professor, Dept Of Obsterics & Gynaecolgy, SRMC Medical college, Varkala
4. Clinical associate, Dept Of Obsterics & Gynaecolgy, SUT, Pattom, Thiruvananthapuaram
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Vulvo-Vaginal Melanoma: 10-Year Experience From a Tertiary Care Center in India

Authors: Dr Aswathy G Nath,Dr Sivarenjith J, Dr Rema P, Dr Suchetha S, Dr Dhanya D, Dr Jagath Krishna
Affiliation: RCC, Thiruvananthapuram

Background:
Melanomas are second most common vulvar cancer. Melanomas are tumors arising from pigmented melanocytes. Annual age adjusted incidence rate of vulvo vaginal melanomas in Asians is 1.03. Incidence of vaginal melanoma is still lower compared to vulval melanoma but they are of very aggressive nature with poor prognosis. The ideal management of vulvo vaginal melanoma is still unknown. As the incidences of these cancers are very less, there are limited numbers of studies to formulate an ideal treatment strategy for the same. The purpose of this study is to analyze the outcome of patients diagnosed with vulvo vaginal melanoma in a major tertiary care center in South India.
Methods and Results:
Retrospective analysis of case records of patients who underwent treatment for biopsy proven vulvo vaginal melanoma from January 2006 to January 2016. Parameters assessed were socio demographic data of patients, age of diagnosis, clinical presentation, diagnostic evaluation, treatment procedures, post-operative complications and follow up data. Overall and disease-free survival was calculated using Kaplan-Meier method and log-rank test for statistical significance. Data was analyzed after grouping patients into two categories 'metastatic group' and 'potentially curative group' on the basis of status of disease presentation. Of the 12 patients in the potentially curative group, 7 had vaginal melanoma and 5 had vulval melanoma. Post-menopausal bleeding was the main complaint of patients with vaginal melanoma while swelling or nodule for vulval melanoma. Only one patient is alive and disease free among the entire cohort. Median overall survival of these patients was 15 months with a standard deviation of 13.6. Median disease-free survival was 8 months with a standard deviation of 5.9. Three of these patients had local recurrence and others had recurrence at distant site, lung being the most common. Among five patients in the metastatic group, lung was the most common site of metastases, followed by liver. Median overall survival was only 11 months with a standard deviation of 3.8.
Conclusion:
Vulvo- vaginal melanoma is an aggressive disease with poor prognosis. Survival outcomes are meager even if patients presented with limited disease. Major prognostic factors are stage of disease and lymph node status. Early diagnosis and surgical resection might extend overall survival

Young Doctor Session/Oral Presentation

Deepak Bose

Current Position:
MCh Gynecological Oncology Resident, Dept of Gynecological Oncology, Regional Cancer Centre, Trivandrum, Kerala, India

Education:
MBBS, DGO, DNB(OBG)

Professional Experiences (Top 5):
Specialist in OBG- 3 years
Senior Resident (OBG) – 1 year

Role of Preoperative Evaluation and Prediction Models in Triaging Lymphadenectomy in Endometrial Cancers

Authors: Deepak Bose, Rema P, Suchetha S, Dhanya Dinesh, Sivaranjith J, Preethi TR, Aleyamma Mathew
Affiliation: Dept of Gynecological Oncology,Dept of Surgical Oncology, Dept of Biostatistics, Regional Cancer Centre, Trivandrum, Kerala

Introduction:
Routine lymphadenectomy may be an overtreatment for endometrial cancer patients. To prevent complications, risk factors for lymph node metastasis should be identified to distinguish the patients who might benefit more from lymphadenectomy than others. One of the aims of our study was to assess the accuracy of preoperative diagnostic techniques and relationship with nodal metastasis risk. The other objective was to evaluate the performance of risk models devised from factors present in our study population in predicting lymph node metastasis with respect to an already established model.
Material & Method:
A retrospective study was conducted on women diagnosed with uterus-confined endometrial cancer, and who underwent surgical staging with pelvic and/or paraaortic lymphadenectomy from our centre during 1st July 2017 to 30th June 2019. Details of preoperative myometrial infiltration extent on pelvic MRI and preoperative endometrial histology were assessed. Performance of these diagnostic techniques were compared with postoperative myometrial invasion and histological grades. Risk factors for nodal metastasis were assessed using logistic regression and two risk models were proposed. The performance of these models were compared with that of model by Stalberg that used risk factors such as grade 3, non-endometrioid tumours and deep myometrial invasion.
Result:
128 patients were included in the study. Nodal metastasis was seen in 14.8% of patients. The accuracy of myometrial invasion assessed by preoperative MRI was only 59.38%, while preoperative diagnosis of high grade histology had an exactness of about 85.16%. Logistic regression analyses revealed lymphovascular invasion and non-endometrioid histology to be significant risk factors, while tumour size >2cm, grade 3 and deep myometrial invasion were non-significant factors. Risk models employing these factors revealed sensitivity of 79-89.5%, specificity of 58.7-69.7% and accuracy of 63-71%, while the established "Stalberg" risk model yielded sensitivity of 73.68%, specificity of 21.1%, and accuracy of 28.91%.
Conclusions:
Preoperative MRI could not be considered to be an accurate measure of myometrial invasion and hence, could not be relied upon for guiding lymphadenectomy. Directed risk models using significant risk factors can better predict risk of nodal metastasis and thus avoid lymph node dissection in low risk patients. Our risk models had reasonably good sensitivity in nodal metastasis prediction and these models could be put into use after further validation.

Young Doctor Session/Oral Presentation

Deepak Bose

Current Position:
MCh Gynecological Oncology Resident, Dept of Gynecological Oncology, Regional Cancer Centre, Trivandrum, Kerala, India

Education:
MBBS, DGO, DNB(OBG)

Professional Experiences (Top 5):
Specialist in OBG- 3 years
Senior Resident (OBG) – 1 year

Prognostic Factors Affecting Outcomes of Surgically Treated Vulvar Malignancies – A Single Institution Experience

Authors: Rema P, Suchetha S, Sivaranjith J, Dhanya Dinesh, Aleyamma Mathew
Affiliation: Dept of Gynecological Oncology, Regional Cancer Centre, Trivandrum, Kerala, India

Introduction:
To assess the clinical and histopathological features of surgically treated vulvar cancers, factors governing recurrence and to assess overall and disease-free survival of vulvar cancers.
Method:
Retrospective study on women who underwent surgical management after a diagnosis of vulvar neoplasms from 1st January 2009 to 31st December 2019 in our institution. Clinicopathological features, treatment details, follow-up, recurrence and survival were collected from medical records. Chi-square test and Fisher Exact test were used to compare categorical data. Risk factors were assessed using logistic regression model. Overall and disease free survival were calculated using the Kaplan-Meier method.
Result:
51 patients underwent surgery in our centre for vulvar neoplasms during the study period. Of these 33 (62%) were vulvar cancers of SCC histology of FIGO stages IA (9.1%), IB (30.3%), II (18.2%), IIIA (6.1%), IIIB (9.1%), IIIC (18.2%), IV (9.1%). Most common procedure performed was radical local vulvar excision (58.8%), of which 66% required inguinofemoral node dissection. Recurrences were seen in 14 of 33 patients, of which 52.6% had local, 26.3% groin and 21% had distant recurrences. Factors such as histological grade, FIGO stage, lesion laterality, tumour size, node involvement and tumour margins were not significant in risk for recurrence. However, adjuvant radiation therapy in indicated cases significantly reduced recurrences compared to patients who did not undertake the indicated radiotherapy. Multivariate analysis did not yield any significant prognostic factors. With a median follow up of 80 months. 4 year overall survival was 76% and disease free survival of 75%.
Conclusion:
Our cohort of vulvar cancer patients had a recurrence rate of 42.4% and overall survival of 76%. Major prognostic factors affecting recurrence were tumour size, stage, margin and nodal status, although non-significant, and adjuvant radiation therapy being significant.

Young Doctor Session/Oral Presentation

Pallavi Verma

Current Position: M.Ch Fellow (Gynaecologic Oncology) at All India Institute of Medical Sciences (AIIMS), Rishikesh

Education: MBBS, DNB, MS (Obstetrics & Gynaecology), F.MAS (Fellowship in Minimal access surgery)

Professional Experiences (Top 5):

1. First rank, Highest Percentage and certificate of honour in MD (Obstetrics & Gynaecology)
2. First rank and certificate of honour in Ophthalmology in MBBS
3. Certificate of honour in Medicine in MBBS
4. Best paper award in GYNECON conference of Armed Forces India in 2017
5. First rank in study leave and subspeciality entrance exam of Armed Forces India

Peripheral Primitive Neuroectodermal Tumor of Pelvis in Pregnancy: A Case Report

Authors: Dr. Pallavi Verma[1], Dr. Amrita Gaurav[2], Dr. Pankaj Kumar Garg[3], Dr. Amit Sehrawat[4], Dr. Shalini Rajaram5, Dr. Jaya Chaturvedi6, Dr. Sandipan Chowdhuri[7], Dr. Parmita Tiwari[7]
Affiliation: M.Ch Gynaecologic Oncology fellow and corresponding author[1], Assistant Professor, Obstetrics & Gynaecology[2], Additional Professor(Surgical Oncology)[3], Assistant Professor (Medical Oncology)[5], Professor and Head of division of Gynaecologic Oncology[5], Professor and Head of Obstetrics & Gynaecology[6], M.Ch Gynae Oncology Fellow[7] at All India Institute of Medical Sciences(AIIMS), Rishikesh, India

Background:
Primitive neuroectodermal tumors (PNET) are highly malignant neoplasms, composed of small round cells of the neuroepithelial origin and belong to same tumor family as Ewing sarcoma. Two main types of PNET include central and peripheral based on location and cell of origin. The typical locations of PNETs are around the skeletal system, but they can arise from any soft tissue. Here we report a rare pelvic soft tissue PNET diagnosed during pregnancy.
Objective:
In present report we describe obstetric and oncological outcome of a rare case of peripheral PNET in a female of 30 weeks gestation with multimodal management.
Intervention and outcome: 23 years old lady reported to our centre at 30 weeks of pregnancy with recurrent left adnexal mass. She underwent laparotomy for left adnexal mass at local hospital which was reported as malignant round cell tumor (PNET) histopathologically. Patient was lost to follow up after surgery and developed recurrence. At our centre, patient was evaluated by imaging and repeat biopsy from adnexal mass, which showed PNET. Patient and relatives were explained about grave prognosis and neoadjuvant chemotherapy but they refused in view of pregnancy. She underwent elective classical cesarean section and delivered healthy baby at 36 weeks gestation. Intraoperatively, a large friable mass of 15x10 cm size occupying whole of lower pelvic region left side, infiltrating peritoneum, pelvic and abdominal wall along with multiple metastatic deposits were seen over uterus and omentum. IHC and FISH study of biopsy specimen revealed strong diffuse positive for CD99 in tumor cells and positive for chromosome 22q12 gene rearrangement, suggestive of Ewing's sarcoma. She was planned for systemic chemotherapy followed by assessment for residual disease. She received 6 cycles of VAC regimen (Vincristine+Actinomycin D+Cyclophosphamide) and 1 cycle of IE (Ifosfamide+Etoposide). Patient had residual disease in abdominal wall and parietal peritoneum. She underwent wide local excision of residual disease with mesh based abdominoplasty. Her final histopathology confirmed Ewing sarcoma with resected margins negative. She was given adjuvant chemotherapy (IE). She is under regular follow up.
Conclusion:
PNET is highly aggressive and universal guidelines in pregnancy are not applicable due to rarity of disease. 5-year survival of localized disease is 50–60%, while relapsed and metastatic patients have 5-year survival less than 20%. In advanced stage, NACT followed by complete tumor resection and adjuvant therapy is best possible management approach in order to improve survival and quality of life.

Young Doctor Session/Oral Presentation

Anandita

Current Position:
Mch Resident Department of gynecological oncology
Amrita institute of medical sciences , Kochi

Education:
MBBS, DNB

Professional Experiences (Top 5):
After postgraduation, 1 year and 6 months senior residency in delhi governemt hospital in obstetrics and gynecology

Comparison of Effect of postoperative coffee / tea consumption on gastrointestinal function after abdominal surgery

Authors: Dr. Anandita, Dr. Anupama R, HOD , department of gynecological oncology, AIMS, KOCHI

Introduction:
Postoperative ileus is the most common, frustrating and one of the expected complication of intra abdominal surgery. The pathophysiology of postoperative ileus is multifactorial.
Coffee and tea are the most common beverages used worldwide. Coffee stimulates motor activity of the large intestine within a few minutes after intake and the The gastrokinetic effects of black tea on gastrointestinal motility were studied both in vivo and in vitro.
Even though the mechanism of action of coffee is not fully known, currently available literature demonstrates a significant improvement in gastrointestinal motility without having any impact on postoperative morbidity. of this popular beverage. Aim of this study is to compare the effect of coffee / tea on postoperative gastrointestinal function.
Method:
This is a single institutional pilot study carried out at a teaching hospital in south India. Study period was from 1 July 2020 to 30 November 2020. Patients undergoing laparotomy for benign and malignant diseases in the department of gynecological oncology were included in the study. The patient requiring ICUs tay and intestinal resection ,anastomosis were excluded . ethical clearance from the ethical committee of the hospital obtained. Informed consent taken form the patients. Primary objective was to compare the time to first flatus in postoperative patients between coffee and tea consumption and secondary objectives to compare the time to first defecation, tolerance of first solid food and length of hospital stay between the 2 groups. Post surgery once the NPO status of the patient was over, then on randomization basis, black tea or black coffee 100 ml was given two times a day with 70 mg of caffeine in a cup of coffee and 40 mg caffeine in a cup of tea.
Result:
40 patients were taken, 20 in each group . In coffee group mean time to first flatus was 20 hours compared to 32 hours in tea group and p value (0.0005).Time to first stool and tolerance of solid food was 38 and 32 hours in coffee group respectively and 53 and 48 hours in tea group respectively, p value being significant in both groups.Postoperative stay was 74 hours in coffee group and 76 hours in tea group. P value (0.07). The more content of caffeine in a cup of coffee than tea must have been contributed to the more gastrokinetic effect of coffee.
Conclusions:
The patients with Postoperative coffee consumption had early return of gastrointestinal function as compared to tea consumption. And hence to look into the effect on postoperative hospital stay, randomized control trail with large sample size can be conducted.

Young Doctor Session/Oral Presentation

Madhavi Dokku

Current Position:
Mch Gyneconcology Resident,
Amrita Institute of Medical Sciences and Research Centre

Education:
SUPERSPECIALITY: Final year MCH Gyneconcology resident, Amrita institute of medical sciences, kerala.
POST GRADUATION: M.S OBG (2010-2013), MediCiti Institute Of Medical Sciences College, Ghanpur.
GRADUATION: MBBS (2002-2007), SVS Medical College, Mahaboobnagar

Professional Experiences (Top 5):
Fellow of The Association of Minimal Access Surgeons of India (FMAS)

Outcomes of Medical Management of Atypical Endometrial Hyperplasia Treated at Single Institution

Authors: Madhavi Dokku, Anupama RajanBabu
Affiliation: Dept of Gynecological Oncology

Introduction:
Atypical Endometrial hyperplasia is a premalignant lesion of uterus with high risk of progression or coexistence with endometrial carcinoma.
The optimal treatment requires removal of uterus and ovaries, but will result in loss of fertility which is not accepted by all. But however, there are no consensus on the ideal medical management protocol, hence varying regimens are used in clinical practices.
Aim of the present study is to assess the response rate to medical management and also to look into outcomes of medical management in patients with infertility as well as the most common regimen associated with regression in this group of patients.
Material and Methods:
This is a single institution retrospective analysis with data retrieved from electronic medical records. Study period was from January 2014 to January 2020. All patients with atypical endometrial hyperplasia undergoing medical management were included. Patients with endometrial carcinoma undergoing medical management and atypical hyperplasia undergoing surgery without medical management were excluded. Statistical analysis was done with IBM SPSS 20. (SPSS Inc, Chicago,USA).To obtain association of categorical variables, chi square test was applied, considering P-value of <0.05 as statistically significant.
Results:
During this period 320 patients had atypical hyperplasia of the endometrium out of which 197 fit into the inclusion criteria. Patients with missing follow up data and no repeat biopsy after medical management were excluded from the analysis. 134 patients were included for final analysis. The most common progesterone used was medroxy progesterone acetate. Regression was seen in 107 patients and overall response rate was 79.8 %. Response rate of recommended progesterone vs other progesterone regimens were assessed and the treatment response was not statistically significant (χ 2 0.0643, p = 0.98). On subgroup analysis of 10 patients with infertility the treatment response rate was 100 %. Megestrol acetate 80 mg BD for 3 months was the most common regimen used. Three patients conceived following infertility treatment during a mean follow up period of 25 months and the conception rates was 30 %.
Conclusion:
It seems the efficacy of any progesterone therapy appears similar and regimen variation is seen in clinical practices. Megestrol 80 mg BD for a minimum period of 3 months was most common regimen associated with response in patients with infertility. There is need for prospective studies to determine the optimal management in atypical endometrial hyperplasia, especially in infertility group.

Young Doctor Session/Oral Presentation

Sue-Jar Chen

Current Position:
Fellow, Gynecologic Oncology, MacKay Memorial Hospital, Taiwan

Education:
M.D, Taipei Medical University (TMU)

Professional Experiences (Top 5):
2015-2018: Resident, Department of Obstetrics and Gynecology, MacKay Memorial. Hospital, Taiwan
2018- 2019: Chief Resident, Department of Obstetrics and Gynecology, MacKay Memorial. Hospital, Taiwan
2019 till now: Fellow, Gynecologic Oncology, Department of Obstetrics and Gynecology, MacKay Memorial Hospital, Taiwan

Can Chemotherapy Effectively Control the Metastatic Lymph Node in Epithelial Ovarian Cancer?: An Analysis of the Recurrent Pattern

Authors: Sue-Jar Chen[1], Yuh-Cheng Yang[1], Tze-Chien Chen[1], Jen-Ruei Chen[1], Chia-Sui Weng[1], Chih-Long Chang[1 2]
Affiliation: Department of Obstetrics and Gynecology, MacKay Memorial Hospital[1] MacKay Medical College[2]

Background:
The efficacy of chemotherapy on metastatic lymph node in epithelial ovarian cancer is still controversial. This study aimed to investigate the site of treatment failure and clinical outcome in epithelial ovarian cancer patients who initially presented with lymph node involvement.
Methods and Results:
A retrospective cohort study was conducted of women diagnosed with advanced (International Federation of Gynecology and Obstetrics stage III-IV) epithelial ovarian cancer, with known lymph node involvement status, from 2008 to 2018 at MacKay memorial hospital who were treated with primary cytoreductive surgery followed by platinum-based adjuvant chemotherapy. Medical records were reviewed to assess for the location of first recurrence. Analysis of sites of treatment failure and initial nodal status was performed.
A total of 117 women were identified. Of these, 67 (57.3%) had initially lymph node involvement and 43 (64.2%) of them recurred, while the rate of recurrence in patients without initially nodal involvement was 52.0%. Distribution of histology subtype, rate of optimal debulking, and mean number of removed nodes during primary cytoreductive surgery were similar between the two groups.
Treatment failure in lymph node was found in 18 (26.9 %) patients with initially lymph node involvement and only in 6 (12.0 %) patients without initially nodal involvement (p= 0.04). The rate of isolated lymph node relapse (without extranodal treatment failure) was also significantly higher in patients with initially lymph node involvement (13.4% versus 2.0% in patients without initially lymph node involvement, p= 0.04). Intraperitoneal treatment failure and distant relapse were similar in frequency between the two groups (intraperitoneal failure: 34.3% versus 38.0% and distant relapse: 25.4% versus 22.0%). There was no significant difference in median progression free survival and overall survival in patients with initially lymph node involvement versus those without initially nodal metastasis (PFS 15.0 and 13.0 months, OS 46.0 and 42.0 months, respectively).
Conclusion:
In our study, the rate of treatment failure in lymph node and isolated lymph node relapse both appeared to be more frequent in patients with initially nodal involvement, while the rate of intraperitoneal disease or distant relapse were similar among patients with or without initially lymph node metastasis. Chemotherapy seems to be less effectively in nodal metastatic disease than in the intraperitoneal or distant disease. However, no significant difference was observed in the progression or overall survival between the two groups.

Young Doctor Session/Oral Presentation

Anjana JS

Current Position:
Mch student

Education:
MBBS,MD Obstetrics and Gynecology

Professional Experiences (Top 5):
Senior resident obstetrics and gynecology for 2 years

Outcome of Advanced Malignant Germ Cell Tumor Ovary After Neoadjuvant Chemotherapy and Surgery

Authors: Anjana J S, Suchetha S, Rema P, Francis J, Dhanya Dinesh, Sivaranjith J, Aswin Kumar, Aleyamma Mathew
Affiliation: Dept of Gynecological Oncology

Introduction:
Malignant Germ cell tumours (MGCTs) are rare tumours that account for 2% - 3 % of all ovarian cancers. They generally occur in adolescents and young women of reproductive age group. Fertility sparing surgery whenever feasible with or without adjuvant chemotherapy, is the standard treatment approach. Upfront fertility sparing surgery may not be feasible in patients with advanced stage disease due to poor performance status, large tumour load, bilateral ovarian disease, or large tumours infiltrating the uterus. Neoadjuvant chemotherapy (NACT) followed by conservative surgery might be considered for such patients. This study aimed to analyse the outcome of patients with advanced malignant germ cell tumour ovary who underwent NACT followed by surgery and to assess the menstrual and reproductive function in those patients who underwent conservative surgery.
Material & Method:
Data from 28 patients who underwent debulking surgery following neoadjuvant chemotherapy for advanced germ cell tumour ovary from January 2008 to March 2019 were collected and analysed.
Result:
The median follow up period was 76 months (range 7 to 133 months).The median age was 16.5 years (range 7 to 31years). Twenty four (85.8%) patients underwent fertility sparing surgery. Two patients opted for hysterectomy and bilateral salpingo oophorectomy as they had completed their family and another two underwent bilateral salpingo oophorectomy for residual disease. A complete pathological response rate was seen in 25 (89.3 %) patients.Two patients were lost to follow up, one of whom was pregnant at the time of the last follow up. One patient, who initially presented with stage IV Dysgerminoma died 6 months after surgery due to disease recurrence. Of the remaining patients, 17 reported menstruation following treatment. Two patients were diagnosed with primary amenorrhoea and 2 are still premenarchal. Three patients tried for pregnancy and had a total of 4 pregnancies.
Conclusions:
When optimal cytoreduction is not feasible, NACT followed by interval cytoreduction might be considered in patients with advanced malignant germ cell tumour. Neoadjuvant chemotherapy makes complete cytoreduction possible in these patients while preserving fertility and is associated with a good reproductive outcome.

Young Doctor Session/Oral Presentation

Anjana JS

Current Position:
Mch student

Education:
MBBS,MD Obstetrics and Gynecology

Professional Experiences (Top 5):
Senior resident obstetrics and gynecology for 2 years

Correlation Between Cervical Cytology, Colposcopic Biopsy and Final Histopathology After LEEP in Patients With CIN - A Single Institution Experience

Authors: Anjana J S, Rema P, Suchetha S, Dhanya Dinesh, Sivaranjith J
Affiliation: Dept of Gynecological Oncology

Introduction:
Cervical cancer is a potentially preventable disease due to its long pre-invasive stage. With effective screening, the incidence of cervical cancer has decreased in developed countries while in developing countries like India the burden of the disease is still high. In India, cervical cancer is the second most frequently detected cancer among women.). In 2012, American Society for Colposcopy and Cervical Pathology (ASCCP) recommended either immediate excision of the transformation zone or colposcopy and biopsy for non-pregnant women aged 25 years or older with HSIL. We conducted this retrospective study to assess the correlation between cervical cytology, colposcopic biopsy and final histology in patients who underwent Loop electrosurgical excision procedure at our institution.
Material & Method:
This is a retrospective audit of patients who underwent LEEP at our institution from January 2014 to September 2019. Data was collected from medical records about patient demographics, clinical symptoms, colposcopic findings, cytology and histopathological reports. The correlation was assessed by kappa statistics.
Result:
A total of 147 patients underwent LEEP during this time period. The mean age of patients in this study was 48yrs (24-72yrs). Cytology reports consisted of HSIL (75.5%), LSIL (14.3%), Squamous cell carcinoma (4.8%), atypical squamous cells cannot exclude HSIL (ASC-H) (3.4%) and atypical squamous cells of undetermined significance (ASCUS) (2%). Cervical biopsy histopathology was CIN3 (61.9%), CIN2 (12.9%), CIN 1 (13.6%), carcinoma (2%) and normal (7.5%). LEEP histopathology showed CIN2/CIN3 (66%) CIN1 (14.3%), invasive carcinoma (6.8%) and normal (12.9%). Around 80% of patients with high grade cytology had CIN 2 and higher lesions in LEEP specimens. It was also noted that in patients with high grade cervical cytology there was a substantial agreement between colposcopic biopsy report and LEEP histology (kappa 0.604, p value < 0.001).
Conclusions:
Colposcopic biopsy showed substantial agreement with final histopathology after LEEP in patients with ASC-H/HSIL cytology .

Young Doctor Session/Oral Presentation

Sarita Kumari

Current Position:
Fellow in Gynaecologic oncology, Division of Gynaecologic Oncology, Department of Obstetrics and Gynaecology, All India Institute of Medical Sciences, New Delhi

Education: MBBS, MD
M.Ch Senior resident (academic), Division of Gynecologic Oncology, Department of Obstetrics and Gynecology, AIIMS, New Delhi
Professional Experiences (Top 5):
Presentations: Poster presentation titled "Ovarian cancer masquerading as cervical carcinoma- a diagnostic dilemma" in 5th workshop of Asian Society of Gynecologic Oncology in Republic of Korea in August 2018.
Awards: First prize for slogan for FIGO-FOGSI cervical cancer elimination initiative 2020
Second runner in paper presentation at AGOICON in November 2018
Publications:

a) Kumari S, Deka D, Dadhwal V, Perumal V. Correlation of fetal blood vessel Doppler measurements with fetal anaemia among Rhesus isoimmunized pregnancies after two intrauterine transfusions. Int J Gynecol Obstet. 2019;146(2):218-222.
b) Kumari S. Gynaecologic cancer care during COVID 19 pandemic in India: a social media survey. Cancer Reports. 2020;3:e1280. https://doi.org/10.1002/cnr2.1280
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Role of Cancer Testis Antigen POTE-E in Preoperative Diagnosis of Epithelial Ovarian Tumors: A Pilot Study

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Background:
Ovarian cancer is the third most common malignancy in Indian women. Globally there were 295, 414 new cases and 184, 799 deaths in 2018 and Asia had the highest regional incidence and mortality. Only 16% cases of Epithelial ovarian cancer (EOC) are localized at presentation and early diagnosis becomes essential for better survival. CA125 has been the best tumour marker but is elevated only in 50% in early stages. Bera et al described the identification of a novel gene family POTE, which is selectively expressed in prostate, testis, ovary, and placenta, as well as in prostate cancer. Analyses using cDNAs from cancer samples showed that POTE is frequently expressed in ovarian cancer.
Methods and Results:
Aim of our study was to study the expression of POTE-E antigen in EOC, correlate the expression with clinico-pathological characteristics and evaluate its potential as a tumour biomarker. A total of 125 women were recruited prospectively, 50 in group I (EOC), 50 in group II (benign ovarian disease) and 25 in group III (healthy controls) after fulfilling inclusion and exclusion criteria. Serum POTE-E values were obtained for all three groups. Serum CA125 was obtained in groups I and II.
Median age of women in groups I, II and III was 54, 40 and 37 years respectively. In groups I and II, 92.0% and 56.0% cases had elevated CA125 respectively. There was statistically significant difference in median serum values between two groups ($p < .001$). A cut off of 132.8 U/ml and AUC of 0.827 had a sensitivity of 80.0% and specificity of 80.0% to distinguish between EOC and benign ovarian disease ($p = .000$). Median value of serum POTE-E varied significantly among three groups ($p = .000$). At a cut off of 92.5 pg/ml and AUC of 0.998, serum POTE-E had a sensitivity of 96.0% and specificity of 100.0% to distinguish EOC and healthy controls ($p = .000$). At a cut off of 323.5 pg/ml and AUC of 0.793, serum POTE-E had a sensitivity of 68.0% and specificity of 72.0% to distinguish between EOC and benign ovarian disease ($p = .000$). Serum values did not vary significantly between stage ($p = .700$) and grade ($p = .602$) of tumour.
Conclusion:
In this preliminary study on a novel tumour marker, we found that serum POTE-E has a good diagnostic accuracy to distinguish between EOC, benign ovarian tumour and healthy controls, however further validation in larger sample size is required.

Young Doctor Session/Oral Presentation

AMULYA B

Current Position:
Assistant Professor in Sapthagiri institute of medical sciences

Education: MBBS, MD OBG, FELLOWSHIP IN LAPAROSCOPY

Professional Experiences (Top 5):
SENIOR RESIDENT AT ESIC MEDICAL COLLEGE RAJAJINAGAR BANGALORE – 1 YEAR 9 MONTHS
CONCULTANT AT LEELA PRIVATE HOSPITAL HYDERABAD- 8 MONTHS
ASSISTANT PROFESSOR AT SAPTHAGIRI INSTITUTE OF MEDICAL SCIENCES BANGALORE- 1 YEAR 5 MONTHS- WORKING TILL DATE.

Case Series of Non Epithelial Ovarian Cancers

Authors: Boddu A
Affiliation: Dept of Obstetrics and Gynaecology

Introduction:
Non epithelial ovarian cancers comprise 10-15 % of all ovarian cancers. Nonepithelial ovarian cancers include malignancies of germ cell origin, sex cord–stromal cell origin, metastatic carcinomas to the ovary, and a variety of extremely rare ovarian cancers like sarcomas. Presenting a series of five cases of non epithelial ovarian cancers which were; adult granulosa cell tumour, malignant fibrothelioma, malignant germ cell tumor, malignant mixed mullerian tumor of ovary and ovarian collision tumor.
Materials and methods:
A retrospective study was done at department of Obstetrics and Gynaecology, Sapthagiri institute of medical sciences, India. Data of ovarian cancer cases operated from 2018-2020 was collected. Cases of non epithelial ovarian cancers were selected.
Results:
Five cases of non epithelial ovarian cancers were obtained from the records. First case was 47 year old female with carcinoma ovary stage IIIc post 3 cycles of neoadjuvant chemotherapy, had Cancer Antigen (CA) 125 of >1000 units/millilitre (U/ml). She underwent interval debulking and was diagnosed with ovarian collision tumor comprising of high grade serous cystadenocarcinoma and immature teratoma stage IIIC. Second case is a 24 year old unmarried girl presented with pain abdomen, left adnexal mass and raised lactate dehydrogenase(LDH) enzyme. Patient underwent total abdominal hysterectomy(TAH) with bilateral salpingoophorectomy(BSO) with omentectomy and pelvic lymph node dissection(PLND) in view of stage IIB. Histopathology revealed Malignant germ cell tumor (yolk sac+dysgerminoma+embryonic carcinoma). Third case was a 64 year old female post hysterectomy presented with pain abdomen, 15 x 10 cm solid pelvic mass not separate from ovaries on imaging. Patient underwent explorative laparotomy+ovariotomy+ PLND+mesenteric lymph node sampling+infracolic omentectomy. Histopathology revealed malignant fibrothelioma. Fourth case was 56 year old female who presented with mass per abdomen. CT scan suggested 21 x 18 cm malignant ovarian mass, CA 125 was 275 U/ml. Patient underwent exploratory laparotomy+TAH+BSO+PLND+infracolic omentectomy. Post operative histopathology showed malignant mixed mullerian tumor. Patient expired after 1 month of surgery due to widespread metastasis. Fifth case was a 53 year old female with pain abdomen since 2 months with right ovarian tumor on imaging and CA 125 of 111 U/ml. Patient underwent staging laparotomy. Histopathology revealed adult granulosa cell tumor stage IIA.
Conclusion:
Non epithelial ovarian tumors are uncommon tumours presenting at an advanced stage. Management depends on adequate surgical staging and histopathology.

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