The 5th Shanghai Gynecologic Oncology Group (SGOG)-Korean Gynecologic Oncology Group (KGOG) joint meeting and 2016 Asia-Pacific Ovarian cancer Laparotomy and Laparoscopic Operation (APOLLO) symposium in Shanghai

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On June 18, 2016, the 5th Shanghai Gynecologic Oncology Group (SGOG)-Korean Gynecologic Oncology Group (KGOG) Joint Meeting was held in Zhongshan Hospital, Fudan University, Shanghai, China. Rongyu Zang (chairman of SGOG, KGOG-SGOG coordinator) from Zhongshan Hospital, Fudan University hosted this meeting. Total 21 KGOG members including Byoung-Gie Kim (president of KGOG, SGOG-KGOG coordinator), Yong-Man Kim (vice president of KGOG), Jae-Weon Kim (chair of ovarian-fallopian tube tumor site committee of KGOG, SGOG-KGOG coordinator), and Taek Sang Lee (secretary general of KGOG) attended the 5th joint meeting. Eight young fellows were included in 21 KGOG attendees (Table 1, Fig. 1).

HISTORY OF SGOG-KGOG JOINT MEETINGS

To briefly look over the history of KGOG-SGOG joint meeting, the first KGOG-SGOG meeting was held in Seoul on June 13, 2012, during the 10th Asian Clinical Oncology Society (ACOS) meeting. The first joint meeting was chaired by Joo-Hyun Nam the prior president of KGOG, and Rongyu Zang who represented SGOG. The second and third joint meetings were held in Shanghai on December 8, 2012 and September 18 to 19, 2014. The fourth meeting was held in Seoul, Korea together with the 4th biennial meeting of Asian Society of Gynecologic Oncology (ASGO) on November 12, 2015 (Table 2, Fig. 2).

THE 5TH SGOG-KGOG JOINT MEETING

The aims of the 5th SGOG-KGOG Joint Meeting which comprised morning and afternoon sessions were to introduce and discuss important issues on the study of upfront surgery
versus neoadjuvant chemotherapy (NACT) followed by interval debulking surgery for patients with International Federation of Gynecology and Obstetrics (FIGO) stage IIIC and IV ovarian cancer (SUNNY) trial and to promote friendship among young doctors from SGOG and KGOG. An impressive opening ceremony co-chaired by Rongyu Zang, a principal investigator of the SUNNY trial in the Asian quarter, and Byoung-Gie Kim, was followed by scientific program (Table 1).

In the morning session, four speakers (two of each from SGOG and KGOG, respectively) introduced interesting studies. Firstly, Rong Jiang from the SGOG young doctor group introduced the SUNNY trial.
Table 2. History of KGOG-SGOG Joint Meetings

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<th>KGOG-SGOG meeting</th>
<th>Attendee</th>
<th>Agenda</th>
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<tr>
<td>1st KGOG-SGOG (June 13, 2012, Seoul, Korea)</td>
<td>KGOG member: Joo-Hyun Nam, Jae-Weon Kim, Jae-Hoon Kim, Byoung-Gie Kim, Sang-Young Ryu, Sokbom Kang, Dong Hoon Suh, Yoo-Kyung Lee SGOG member: Rongyu Zang</td>
<td>Introduction of KGOG and SGOG (Jae-Hoon Kim) KGOG 2014, 2015 (Sokbom Kang) KGOG 3019 (Byoung-Gie Kim) SGOG ongoing trials and related activities (Rongyu Zang) GOG263, TACO (Sang-Young Ryu)</td>
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<td>2nd SGOG-KGOG (December 8, 2012, Shanghai, China)</td>
<td>SGOG member: Jing-He Lang, Rongyu Zang, Wen Di, Ji-Hong Liu, Xian-Jie Tan, Quan Hao, Xiaojun Chen, Xi Cheng, Xi-Peng Wang, Boer Shan, Xiao Huang, Bei-Hua Kong, Xiao-Ping Wan, Hong Sun, Yin-Cheng Teng, Jianqiu Zhu, Ping Zhang, Hua Jiang, Ya-Ping Zhu, Li-Hua Qiu, Jin-jin Yu, Zhi-Yuan Dai, Xia Wu, Ting-Yan Shi, Shu Shan KGOG member: Soon-Beom Kang, Jae-Hoon Kim, Jae-Weon Kim, Sang-Young Ryu, Dong Hoon Suh</td>
<td>Ovarian cancer trials and translational research within SGOG (Rongyu Zang) Ovarian cancer trials and translational research of KGOG (Jae-Hoon Kim) Introduction of Peking Union Medical College Hospital (Xian-Jie Tan) International clinical trials on cervical cancer and TACO trial (Sang-Young Ryu) Metabolic syndrome and endometrial cancer (Xiao-Jun Chen) Prospective observational study for the validation of preoperative low-risk criteria for LN metastasis in endometrial cancer (Jae-Weon Kim) Data flow in KGOG trials and e-Velos system (Dong Hoon Suh) Post-GWAS collaborations of ovarian cancer (Ting-Yan Shi)</td>
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<tr>
<td>3rd SGOG-KGOG (September 19–20, 2014, Shanghai, China)</td>
<td>SGOG member: Jie Jiang, Heng Cui, Jihong Liu, Xiu-Gui Sheng, Jianqiu Zhu, Ping Zhang, Wen Gao, Hong Pu, Xiaojun Chen, Xin Lu, Xi-Peng Wang, Yaping Zhu, Zhi-Yuan Dai, Hua-Ying Wang, Xiao Huang, Yan-Fei Liu, Rongyu Zang, Jun Guan, Rong Jiang, Bing-Yi Yang, Ting-Yan Shi, Yun-Lang Cai, Chun-Lin Chen KGOG member: Joo-Hyun Nam, Byoung-Gie Kim, Jae-Hoon Kim, Jae-Weon Kim, Sokbom Kang, Sang-Young Ryu</td>
<td>KGOG1029 (Joo-Hyun Nam) SGOG OV2 (SMART2) (Rong Jiang) SGOG TACO (Sang-Young Ryu) SGOG OVI (SMART1) (Rong Jiang) SGOG SMARTI phase II to phase III (Rong Jiang) SGOG OV3, OV4A, OV4B (Rongyu Zang) KGOG2015 (Sokbom Kang) ECCO and SGOG possible participants (Byoung-Gie Kim) SGOG-KGOG Cooperation Concept (Byoung-Gie Kim, Rongyu Zang)</td>
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<tr>
<td>4th KGOG-SGOG (November 12, 2015, Seoul, Korea)</td>
<td>KGOG member: Soon-Beom Kang, Joo-Hyun Nam, Byoung-Gie Kim, Jae-Hoon Kim, Jae-Weon Kim, Sang-Young Ryu</td>
<td>SOTO study, searching an optimal third-line chemos-/ anti-angiogenic therapy in ovarian cancer (Sang-Won Kim) The SUNNY trial, a phase 3 randomized study of upfront surgery versus neoadjuvant chemotherapy followed by interval debulking surgery in ovarian cancer (Rongyu Zang) Phase II study of fertility-sparing management using high-dose oral progesterin in young women with stage I endometrial adenocarcinoma, grade 2 or superficial myometrial invasion (Jeong-Yeol Park) The effect of metformin combined with megestrol acetate in conservative treatment of early stage endometrial cancer and endometrial atypical hyperplasia: a multicenter randomized control trial (Xiaojun Chen)</td>
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ECCO, European Cancer Organisation; GOG, Gynecologic Oncology Group; GWAS, genome-wide association study; KGOG, Korean Gynecologic Oncology Group; LN, lymph node; OV, ovary; SGOG, Shanghai Gynecologic Oncology Group; SOTO, searching an optimal chemo-anti-angiogenic therapy in platinum-resistant ovarian cancer; SUNNY, study of upfront surgery versus neoadjuvant chemotherapy followed by interval debulking surgery for patients with stage IIIC and IV ovarian cancer; SMART1, a phase II, randomized study of an addition intraperitoneal cisplatin and etoposide to standard first-line therapy in stage IIC and stage IV epithelial ovarian, fallopian tube, and primary peritoneal cancer; SMART2, a phase II/III study to evaluate the efficacy of secondary cytoreduction in platinum-sensitive recurrent ovarian cancer; TACO, tri-weekly administration of cisplatin in locally advanced cervical cancer study.

Epithelial ovarian cancer (EOC) is the most lethal gynecologic cancer. Although optimal surgical cytoreduction with no residual tumor is associated with better survival outcomes, it is often difficult to perform because most EOC is diagnosed at advanced stage with extensive peritoneal seeding. NACT has been suggested as an option for feasibility of optimal cytoreduction. NACT can decrease the tumor burden, so that subsequent complete cytoreduction is more achievable than upfront surgery. Moreover, NACT may improve performance status, shorten the operation time, spare as much crucial intraperitoneal organs as possible, and therefore minimize perioperative morbidity and mortality. Recently, two randomized controlled trials, the European Organisation for Research and Treatment of Cancer (EORTC) 55971 and Chemotherapy or Upfront surgery (CHORUS) studies, have
reported that NACT followed by IDS is not inferior to primary debulking surgery (PDS) in the management of patients with stages IIIC and IV EOC. However, several issues were raised in the studies comparing PDS with NACT plus IDS. These two studies were conducted in a setting of limited maximal surgical effort, as evidenced by low rates of optimal cytoreduction and no gross tumor clearance. To investigate the role of NACT in the treatment of advanced EOC, a well-designed prospective randomized phase III clinical trial in specialized centers with experience in maximal surgical effort is needed. And the SUNNY trial aimed to evaluate whether PDS can improve overall survival (OS) compared with NACT followed by IDS.

Active discussions happened as follows. Michael Bookman, chair of the ovarian committee of NRG Oncology, recommended core needle biopsy instead of cytology in the inclusion criteria of the SUNNY trial. He suggested that it would be better to exclude low-grade serous adenocarcinoma by using p53 immunohistochemistry and noted that a laparoscopic biopsy tended to be followed by unnecessary operative procedures. However, Prof. Zang indicated that laparoscopic biopsy could be useful in finding out that the ovarian tumor was not a primary tumor but metastasis of another cancer such as stomach cancer. And he, therefore, argued that laparoscopic biopsy rather than cytology is appropriate for diagnosis. Jae-Weon Kim, the Korean principal investigator in the SUNNY trial, offered to include Asian countries other than Korea and China, such as Japan and Taiwan, because SUNNY is intended to be an Asian trial. Furthermore, he said that some members of Japan Gynecologic Oncology Group (JGOG) were interested in participating in the SUNNY trial.

Second, Ha Kyun Chang proposed an ancillary study to the SUNNY trial. He suggested that preoperative positron emission tomography-computed tomography (PET-CT) could be used in predicting the clinical response to NACT in advanced-stage EOC. Using two PET-CT images of before and after the 1st cycle of NACT, the change in standardized uptake value (SUV) is assessed. Using tissues obtained at two time points, diagnostic laparoscopy before the 1st cycle of NACT and IDS after the 3rd cycle of NACT, chemotherapy response score as a pathologic parameter is decided through review of two paired slides by pathologists. Correlation between SUV change, chemotherapy response score, and survival is evaluated.
Primary objective is to determine changes in tumor functional parameters such as SUV, total lesion glycolysis, and metabolic tumor volume. Secondary objectives include determining whether changes in tumor metabolism from sequential PET-CT are prognostic of survival in NACT arms. By adding functional imaging to the master treatment study, there is potential to identify the quantitative functional parameters of PET-CT that are early predictors of the patient response to therapy and survival in ovarian cancer. If changes in tumor metabolism after the 1st cycle of conventional NACT (paclitaxel and carboplatin) are not satisfactory, it may well be replaced by other strategies such as different regimen of NACT or immediate surgery. Michael Bookman pointed out that this idea was interesting, but that conducting PET-CT in only one arm could affect the results of the main study. Thus, PET-CT should be performed in all groups. Prof. Zang also said that it would be a good idea to conduct a subgroup study of the SUNNY trial; after a few modifications of the scheme, a subgroup study could be set up.

Third, Xiaojun Chen, KGOG-SGOG coordinator, presented her study results which immunohistochemically evaluated the expression of blood and tissue markers predicting lymph node metastasis in endometrial cancer. In 370 endometrioid endometrial cancer patients undergoing comprehensive surgical staging, a prediction model which could identify patients with a low-risk of lymph node metastasis was created. In this model, both serum tumor marker, cancer antigen 125 (CA-125), and tissue markers including estrogen receptor, progesterone receptor (PR), Ki67, and p53 were used. The low-risk group could be characterized as serum CA-125 <30.0 IU/mL and a tumor with either or both positive PR staining >50% and Ki67 <40%. Byoung-Gie Kim had a comment on the necessity of central review of immunohistochemical staining results because the results were quite variable between the readers. He also argued that the extent of lymph node dissection should be considered if there was recurrence at lymph nodes during follow-up. In line with Prof. Kim's comment, Jae-Weon Kim added that whether performing para-aortic lymph node dissection or not should be counted in the analysis.

In the last lecture of the morning session, Jeong-Yeol Park talked about the KGOG 3033 study. The KGOG 3033 study is a prospective study evaluating a strategy of surgery alone and surveillance in FIGO stage I malignant ovarian germ cell tumors. He said that 75% of cases had been 'cured' by surgery alone. In the following discussion session, it was suggested that, due to the rapidly progressive characteristics of yolk sac tumors, a follow-up period of 3 months would be too long. Another opinion was that 3-year OS would be better than 2-year OS as the primary endpoint.

In the afternoon session, discussion about effective cooperation and authorship regarding the SUNNY trial took place. Presentations about the data management systems of SGOG and KGOG were followed. Given that over 70 participants including many young doctors from KGOG and SGOG attended this joint meeting, the future of cooperation between KGOG and SGOG is promising.

In the afternoon session, members of KGOG and SGOG actively discussed the SUNNY trial, including cooperation and authorship bylaw. Overall, the discussions ran smoothly, and it was decided that authorship would be supplemented and then decided on at a future meeting. Then, Jae-Weon Kim elaborated on the history of KGOG-SGOG joint meeting and suggested a concept for KGOG-SGOG cooperation. He called for a Korean co-principal investigator, and recommended Suk-Joon Chang for this position.
During the last afternoon session, there were various presentations on data management at SGOG and KGOG. The first was on data management and e-CRFs (clinical research forms) by Zi-Yong Xiang, from SGOG, the second was about randomization in the SUNNY trial by Wei Zhang from SGOG, and the last one on KGOG data management was by Kidong Kim. They all spoke in detail and presented reasonable and secure approaches for data management.

During the Joint Meeting, every participant was interested in meeting topics and raised a lot of questions, comments and discussions about the SUNNY trial. The Joint Meeting was a good chance for mutual understanding as gynecologic oncologists for all the participants, especially the young doctors.

Rongyu Zang hosted this meeting together with Asia-Pacific Ovarian Cancer Laparotomy and Laparoscopic Operation (APOLLO) symposium in June 19, 2016, in which one Korean moderator, Jae-Weon Kim preside a session and two Korean speakers, Byoung-Gie Kim and Sang-Yoon Park (National Cancer Center, Korea) gave lectures on ‘novel molecular targets for EOC’ and ‘upper abdominal surgery in advanced ovarian cancer,’ respectively.

WHICH IS BETTER: UPFRONT SURGERY OR NACT? DISPUTE KEEPS GOING ON, BUT THE SUNNY TRIAL IS ON THE WAY - A REPORT OF 2016 APOLLO SYMPOSIUM IN SHANGHAI

Despite modest improvements in the outcome of ovarian cancer patients over the past decades, EOC, especially high-grade serous type remains most commonly diagnosed with advanced stages and associated with poor prognosis. PDS followed by platinum-based chemotherapy is still the standard treatment for recent decade. In addition, the lack of well-trained oncologic gynecologists for ovarian cancer surgery has repercussions on patients’ outcome. Therefore, updated knowledge and surgery training generated from translational researches and well-designed clinical trials are more needed.

Zhongshan Hospital, Fudan University initiated the 2016 Shanghai APOLLO symposium (Fig. 3). APOLLO means exploration of novel and precise surgical treatment for ovarian cancer, translational
The purpose of this year’s symposium was to conduct a high level of discussion and debate on ovarian cancer surgery, live surgery training for laparotomy, laparoscopic, and robotic, multidisciplinary team (MDT) cooperation in the management of ovarian cancer. The opening ceremony was chaired by Rongyu Zang. Across the meeting sessions, a total of 30 presentations were given, which comprised of two opening speeches, six radical surgery speeches, five translational medical research speeches, four laparoscopic diagnosis and surgery speeches, five MDT cooperation speeches, four speeches on ovarian cancer surgery and MDT perioperative management, as well as four academic seminar presentations. Invited international speakers are Michael Bookman (USA), two from KGOG: Byoung-Gie Kim and Sang-Yoon Park, one from Hong Kong, Hextan Ngan.

Specifically, in the radical surgery session, Rongyu Zang and Michael Bookman present their comments and discussions for radical surgery of ovarian cancer from oncologic gynecologists’ and from medical oncologists’ perspectives. Then Hextan Ngan gave her lecture about the National Comprehensive Cancer Network (NCCN)/FIGO guideline of radical surgery. Sang-Yoon Park presented the issues of upper abdominal surgery in advanced ovarian cancer. The SUNNY trial, which has recently started its first site under the cooperation of Chinese and Korean teams, will benefit from those topics and active discussions. Although 40% patients with advanced EOC receive NACT today in the United States, upfront radical surgery is still the primary choice in those centralized centers for EOC care in the United States, Korea, and China as well. Despite such a confused situation around the world remains, randomized clinical trials from professional surgical teams will finally resolve the dispute, probably around 2025. In the translational research session, Byoung-Gie Kim presented novel molecular targets for EOC. Then other Chinese speakers gave lectures about molecular mechanisms and progresses on ovarian cancer therapy. In the laparoscopic diagnosis and surgery session, Chinese oncologic gynecologists presented improved technology of laparoscopic surgery in EOC. In MDT session, medical oncologists, pathologists, radiologists and oncologic gynecologists elucidated the systemic treatments of advanced EOC by their opinions. In the perioperative management session, the speakers debated on the issues of retroperitoneal lymphadenectomy, colorectectomy, urinary surgery, and perioperative complications.

Except for the intensive lectures with accompanying discussions during the academic sections, the symposium had two live surgery and two tumor board sections. Live operations of radical surgery for primary and recurrent disease were presented. One was diagnosed with EOC stage IIIC and treated by PDS, diaphragmatic stripping and Dixon surgery. The other was a second relapse case undergoing secondary cytoreductive surgery, partial ileal resection and enterointerostomy. In the tumor board section, two ovarian cancer patients were discussed vigorously by ovarian cancer MDT committee. One was an initial treatment case, and the other was a recurrent case.
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