Annual report of the Women’s Health Care Committee, Japan Society of Obstetrics and Gynecology, 2017

Kiyoshi Takamatsu¹ and Jo Kitawaki²

¹Department of Obstetrics and Gynecology, Tokyo Dental College Ichikawa General Hospital, Chiba and ²Department of Obstetrics and Gynecology, Kyoto Prefectural University of Medicine, Kyoto, Japan

Abstract

To improve women’s quality of life, the activity of the Women’s Health Care Committee over a year up to July 2017 focused upon: (i) breast management; (ii) the influence of gynecological disease therapy on physical condition; (iii) non-surgical management of pelvic organ prolapse; (iv) survey of infectious diseases in obstetrics and gynecology in Japan; (v) health care for female athletes; (vi) a training program for women’s health care advisors; (vii) revising the Japanese guidelines on hormone replacement therapy; and (viii) revising the 2016 Japanese guidelines for the proper use of emergency contraceptives. The detailed activity of the eight subcommittees is described herein. This report is based on the Japanese version of our annual report (Acta Obst Gynaec Jpn 2017;69(6):1480–1491), to publicize the activities of our committee.

Key words: breast disease, emergency contraceptives, female athletes, health care adviser, hormone replacement therapy, infectious disease, pelvic organ prolapse, surgical menopause.

Subcommittee on Breast Management in Obstetrics and Gynecology

Subcommittee Chairperson: Minoru Irahara
Committee: Kiyoko Kato, Masaharu Kamata, Hiroko Komura, Toshiaki Saeki, and Kazuyoshi Dobashi
Research collaborators: Keiji Shitsukawa, and Tsuyoshi Kato

At the 2015–2016 meeting of the Subcommittee on Breast Management in Obstetrics and Gynecology, we prepared clinical guidelines for breast management by obstetricians and gynecologists. The guidelines included breast management of young adults, pregnant women, and women receiving hormone replacement therapy; the involvement of obstetricians and gynecologists in breast cancer screening; and the acquisition of techniques for carrying out breast management.

In 2016, the Subcommittee conducted a nationwide survey on current clinical practices to learn the state of breast management in obstetrics and gynecology and the frequency of incidence of target diseases, as well as to understand how obstetricians and gynecologists are involved in this area, what kind of issues exist and what approach needs to be taken in future. The information obtained from the survey will be used to carry out future breast management in obstetric and gynecological care.

At present, we are preparing to publish a textbook including the following subjects:

1. Breast diseases in adolescents and young adults
2. Common benign diseases frequently encountered by obstetricians and gynecologists
3. Advantages and problems with introducing breast cancer screening, mammography and ultrasonography in particular
4. Incidence of breast cancer during pregnancy, specifically the efficacy of inspection and palpation methods and imaging tests aimed at early detection
5. Current incidence of breast cancer during hormone replacement therapy

Received: June 24 2017.
Accepted: July 17 2017.
Correspondence: Professor Kiyoshi Takamatsu, Department of Obstetrics and Gynecology, Tokyo Dental College Ichikawa General Hospital, Sugano 5-11-13, Ichikawa-city, 272-8513 Chiba, Japan. Email: ktakamatsu@tdc.ac.jp
The copyright line for this article was changed on March 19, 2018 after original online publication.

© 2017 Japan Society of Obstetrics and Gynecology
Subcommittee on Investigation of Physical Influence after Gynecological Disease Therapy

Subcommittee Chairperson: Masahide Ohmichi
Committee: Kenjiro Sawada, Kouichi Shinohara, Kazuhiro Takahashi, Kunihiko Hayashi, and Kenichiro Morishige
Research collaborators: Hiroshi Sasaki, Kouichi Terachi, Yoshihito Yokoyama, and Takayuki Yoshida

Background
The Japan Postoperative Women’s Health Study (JPOS) and the Japan Women’s Health Study Following Cancer Therapy (JSCAT) commenced in October 2011. The main purpose of this study was to clarify the effect of gynecological operations, chemotherapy and radiation therapy on women’s health. We paid particular attention to the health of premenopausal women who had undergone bilateral salpingo-oophorectomy (BSO). There have been many reports indicating that surgical menopause by premenopausal BSO is related to serious health consequences, including premature death, cardiovascular disease, osteoporosis and cognitive function impairment. Moreover, we have previously reported that platinum-based chemotherapy directly induces vascular endothelial dysfunction and may be a risk factor for the development of atherosclerosis. Therefore, gynecologic cancer survivors should be educated about these potential risks, and informed regarding lifestyle modifications that may benefit their general health. Herein, we report the results of health surveillance after gynecologic therapy.

Japan postoperative women’s health study (JPOS)

Aim
1 We will survey the patients’ postoperative health condition for 10 years after their surgery, and will clarify the incidence of disease, such as climacteric disorder, depression, hypertension, dyslipidemia, diabetes, osteoporosis and cancer.
2 We will establish a postoperative women’s healthcare guideline.

Methods
We recruited patients who underwent gynecologic surgery at Yamagata University Hospital, Hirosaki University Hospital, the Medical Hospital of Tokyo Medical and Dental University, Osaka Medical College Hospital and Yamagata Saisei Hospital. Heath surveillance was conducted using questionnaires sent by mail. Preoperative women were categorized into two groups: premenopausal and postmenopausal. Moreover, we classified all patients into two groups according to whether they had undergone BSO or not (ovarian conservation [OC]). All of the data in the Tables and Figures are expressed as mean ± standard deviation. Differences in baseline characteristics, except for smoking, were analyzed using a Student’s t-test, while other differences were analyzed using a chi-square test. P < 0.05 was considered statistically significant.

Results
In total, 1202 women who underwent gynecologic surgery were recruited. Of those, 768 (41.3 ± 7.3 years) were premenopausal, and 434 (62.4 ± 8.6) were postmenopausal. Two hundred (26.0%) premenopausal women received BSO, and the ovaries were conserved in 568 (74.0%); 384 (88.5%) postmenopausal women underwent BSO, and the ovaries were conserved in 50 (11.5%). Apart from age, no difference was observed between OC and BSO in premenopausal women. The number of fibrinoid, ovarian cyst, adenomyosis, and cervical cancer cases was higher in premenopausal than in postmenopausal women who underwent gynecological surgery. The prevalence of preoperative complications, such as hypertension, dyslipidemia, diabetes mellitus, cardiovascular disease and cerebral vascular disease was higher in premenopausal than in postmenopausal women.

A questionnaire survey by mail commenced in January 2014. We received responses from women two (first mail survey) or four years (second mail survey) after their surgery. The response rates of the first and second survey were 60.2% and 58.1%, respectively (Fig. 1).

We analyzed 442 premenopausal women two years after their surgery. The prevalence of hypertension and dyslipidemia after surgery was significantly higher in the BSO group than in the OC group (Table 1). However, there was no difference in disease prevalence between the BSO and OC groups in premenopausal women four years after their surgery (Table 2).

Conclusion
We found that the incidence of hypertension and dyslipidemia was significantly increased in premenopausal
Women two years after undergoing BSO. However, this significant difference diminished in premenopausal women four years after their surgery. If possible, further surveillance is needed to clarify this difference and to confirm the effect of BSO on premenopausal women’s health.

Japan women’s health study following cancer therapy (JSCAT)

Aim
We investigated whether lifestyle-related diseases such as hypertension, dyslipidemia, diabetes, depression and osteoporosis are associated with gynecological cancer treatment.

Methods
We enrolled 330 gynecological cancer (cervical cancer [CC], endometrial cancer [EC], ovarian cancer [OvC]) patients who underwent cancer treatment (surgery, chemotherapy, radiation therapy) at Osaka Medical University Hospital, Osaka University Hospital, Gifu University Hospital and Aichi Medical University Hospital. We surveyed the patients’ health condition such as hypertension, dyslipidemia, diabetes, depression and osteoporosis after cancer treatment. Analysis of variance was used to for statistical analysis.

Results
A total of 330 women with gynecological cancer (CC 96, EC 130, OvC 104) were eligible for this study. The mean age range of the patients was CC 55.2 ± 14.5, EC 62.6 ± 16.1, and OvC 58.4 ± 14.3 years. There was no difference in age between CC, EC and OvC patients. We surveyed each lifestyle-related disease at two points: pretreatment and post-treatment (five years after treatment). The incidence of hypertension and dyslipidemia was higher in pretreatment EC patients than in CC or OvC patients (Table 3). After treatment, the incidence of dyslipidemia in premenopausal patients with EC was higher than patients with CC or OvC (Table 4). On the other hand, there was no difference in the incidence of hypertension or diabetes mellitus between CC, EC and OvC patients.

Conclusion
Dyslipidemia in premenopausal patients with EC significantly increased after cancer treatment. Therefore, it is important to consider lifestyle-related diseases, particularly dyslipidemia, when planning cancer treatment.

| Table 1 Prevalence of complications within two years after gynecologic surgery |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Menstrual status before operation (age) | Premenopause | | | | Postmenopause | | | |
| | | | | | | | | |
| Operation (age) | OC | BSO | P | OC | BSO | P |
| | n = 338 (40.6 ± 6.7) | n = 104 (44.7 ± 5.9) | | n = 31 (61.5 ± 9.5) | n = 202 (62.9 ± 8.0) | |
| Hypertension | 8 (2.4%) | 8 (7.7%) | 0.029 | 1 (3.2%) | 7 (3.5%) | ns |
| Dyslipidemia | 7 (2.1) | 10 (9.6) | 0.0015 | 2 (6.5) | 24 (11.9) | ns |
| Diabetes mellitus | 1 (0.3) | 2 (1.9) | ns | 0 | 2 (1.0) | ns |
| Depression | 0 | 0 | ns | 0 | 0 | ns |
| Osteoporosis | 0 | 0 | ns | 2 (6.5) | 10 (5.0) | ns |
| Cardiovascular disease | 1 (0.3) | 0 | ns | 0 | 0 | ns |
| Cerebral vascular disease | 0 | 0 | ns | 0 | 1 (0.5) | ns |
| Cognitive disease | 0 | 0 | ns | 0 | 0 | ns |

BSO, bilateral salpingo-oophorectomy; ns, not significant; OC, ovarian conservation.
Table 2 Prevalence of complications within four years after gynecologic surgery

| Menstrual status before operation (age) | Operation (age) | Premenopause | Postmenopause |
|----------------------------------------|-----------------|--------------|---------------|
|                                        | OC n = 93 (45.3 ± 6.2) | BSO n = 104 (48.0 ± 7.4) | P | OC n = 31 (65.8 ± 7.1) | BSO n = 202 (66.3 ± 9.9) | P |
| Hypertension                            | 4 (4.3%)        | 1 (4.8%)     | ns            | 1 (8.3%) | 2 (4.0%)   | ns |
| Dyslipidemia                            | 9 (9.7)         | 3 (14.3)     | ns            | 4 (33.3) | 9 (18.0)   | ns |
| Diabetes mellitus                       | 0               | 1 (4.8)      | ns            | 0        | 0          | ns |
| Depression                              | 1 (1.1)         | 0            | ns            | 0        | 1 (2.0)    | ns |
| Osteoporosis                            | 0               | 0            | ns            | 1 (8.3)  | 4 (8.0)    | ns |
| Cardiovascular disease                  | 1 (1.1)         | 0            | ns            | 0        | 1 (2.0)    | ns |
| Cerebral vascular disease               | 0               | 0            | ns            | 0        | 1 (2.0)    | ns |
| Cognitive disease                       | 0               | 0            | ns            | 0        | 0          | ns |

BSO, bilateral salpingo-oophorectomy; ns, not significant; OC, ovarian conservation.

Table 3 The incidence of complications after treatment among patients with gynecologic cancers

| Complication               | Time of treatment | CC (%) | EC (%) | OvC (%) |
|----------------------------|-------------------|--------|--------|---------|
| Hypertension               | Pretreatment      | 15.1   | 32.0*  | 17.3    |
|                            | Post-treatment    | 5.4    | 4.9    | 6.7     |
| Dyslipidemia               | Pretreatment      | 8.1    | 35.9*  | 24      |
|                            | Post-treatment    | 7.0    | 9.4    | 1.9     |
| Diabetes mellitus          | Pretreatment      | 4.3    | 11.7   | 7.7     |
|                            | Post-treatment    | 0      | 0      | 1.9     |
| Osteoporosis               | Pretreatment      | 9.7    | 7.1    | 12.3    |
|                            | Post-treatment    | 2.8    | 2.4    | 1.2     |
| Cardiovascular disease     | Pretreatment      | 0      | 2.5    | 1.0     |
|                            | Post-treatment    | 0      | 0.8    | 0       |
| Depression                 | Pretreatment      | 2.2    | 6.7    | 4.1     |
|                            | Post-treatment    | 2.2    | 1.7    | 2.1     |

*P < 0.05. CC, cervical cancer; EC, endometrial cancer; OvC, ovarian cancer.

Table 4 The incidence of complications after treatment in premenopausal patients with gynecologic cancers

| Complication               | Time of treatment | CC (%) | EC (%) | OvC (%) |
|----------------------------|-------------------|--------|--------|---------|
| Hypertension               | Pretreatment      | 6.4    | 21.9*  | 5.1     |
|                            | Post-treatment    | 4.3    | 3.1    | 5.1     |
| Dyslipidemia               | Pretreatment      | 2.1    | 12.5   | 12.8    |
|                            | Post-treatment    | 10.6   | 21.9*  | 0       |
| Diabetes mellitus          | Pretreatment      | 0      | 9.4    | 0       |
|                            | Post-treatment    | 0      | 0      | 2.6     |

*P < 0.05. CC, cervical cancer; EC, endometrial cancer; OvC, ovarian cancer.

Subcommittee on Non-surgical Management of Pelvic Organ Prolapse

Subcommittee Chairperson: Masayasu Koyama
Committee: Hiromi Inoue, Yukiko Shimizu, Maki Nakata, Kenichi Furuya, and Michiko Yoshida
Research collaborators: Yuimi Marumoto

Background

Pelvic organ prolapse (POP) is a common medical condition that affects women’s quality of life and restricts their activities of daily living. However, assistance from medical providers to women suffering from POP has until now not been adequate and there are still a lot of unmet needs to be addressed concerning this disorder.
In this context, two nationwide surveys: ‘The actual practice in the evaluation and treatment of POP in Japan’, and ‘The trends in surgical management of POP in Japan’, were conducted in 2012 and 2014, respectively, by the Women’s Healthcare Committee at JSOG.

Regardless of the hurdles we continue to face, these investigations showed that remarkable progress has been made in the technical aspect of surgical treatment and that more specialized facilities than ever are being established to supply medical care for POP patients.

Aim
Among the vast number of women experiencing POP, only a small fraction benefit from surgical treatment. Those who undergo surgical intervention later require conservative management in the early stages of POP. In terms of the medical coordination of POP, gynecologists who work in general outpatient clinics play as equally important a role as the specialists who provide surgical treatment. Such gynecologists should be prepared to assist patients suffering physical symptoms and psychological anxiety by making adequate referrals. Educational activities for office gynecologists should stress the need of support for POP patients.

After thorough discussion of the pre-existing survey results, we concluded that in order to design efficient medical coordination to handle POP patients based on the concerted efforts of pelvic floor specialists and gynecologists in general, we need to know more about how Japanese ob-gyns conservatively manage POP.

Methods

Questionnaires
The subcommittee members independently crafted questions regarding the non-surgical care of POP patients and related matters among ob-gyns, which were then compiled into two questionnaires, one for gynecological facilities (A) and the other for individual ob-gyns (B) (Tables 5, 6).

Both questionnaires were loaded onto our website, which was prepared by SurveyMonkey, a commercial cloud service dedicated to Web research. The web

| Table 5 Questionnaire A: Inquiry to Japan Society of Obstetrics and Gynecology-authorized educational hospitals |
|---|
| **Respondents** |
| Q0-1 | Type of facilities |
| Q0-2 | Treatment of pelvic organ prolapse |
| Pessary use |
| Q1-1 | System |
| Q1-2 | General outline |
| Q1-3 | Migration and referral of patients |
| Q1-4 | Guidelines |
| Q1-5 | Self-care program |
| Pelvic floor muscle training |
| Q2-1 | System |
| Q2-2 | General outline |
| Q2-3 | Therapy evaluation |
| Q2-4 | Teaching method |
| Q2-5 | Guidance for home training |
| Q2-6 | Follow-ups of home training |

© 2017 Japan Society of Obstetrics and Gynecology
application generates two sets of inquiry pages to be presented, depending on the device the reader uses (personal computer, tablet, or smartphone). After entering an answer, the respondent is then taken to the next question that he/she is required to answer, depending on the answer(s) given immediately before, with the aid of the dynamic proceeding function of web inquiry. The web questionnaire was open to respondents until September 2016.

**Respondents**
Request letters on behalf of the Japan Society of Obstetricians and Gynecologists (JSOG) were sent to all of the official JSOG educational facilities, asking each to view and respond to questionnaire A on our website. In order to invite as many individual ob-gyns to complete questionnaire B as possible, public relations activities were advertised on the official website, JSOG mail news was updated and request letters to the prefectural branch offices of the Japan Association of Obstetricians and Gynecologists were sent.

**Data processing**
Questionnaire responses were stored in the SurveyMonkey cloud system through the period of acceptance. After collecting the responses, the data was processed and cross-tabulated by the web application of the cloud system. At the end of October 2016, the subcommittee members gathered in person to check the results and develop a policy to publish them officially.

**Results**

**Questionnaire A**
Four hundred and six responses were gathered from 629 gynecological facilities. There was no significant difference between the respondents and the total of the facilities in the ratio of the types of institutions as classified by the establisher. Three hundred and ninety-two (95.4%) facilities were treating POP, and 391 were using vaginal pessaries to manage POP.

In the majority of respondent facilities, women who presented with POP were treated in the framework of general gynecological outpatient practice (96.2%). In a
small number of facilities, however, specialized outpatient sections dedicated to women’s healthcare or urogynecology were available (7.9% and 7.2%, respectively). The overwhelming majority of staff members in charge of POP patients were ob-gyns (99.7%), but there was exceptional engagement by nurses and midwives (6.2% and 1.0%, respectively) in several facilities.

Only three facilities had a unified rule for the selection of size at the start of using a pessary. Otherwise the physician in charge used his/her own discretion to choose a pessary size to be tried preferentially. As few as 11 facilities (3.8%) had specific guidelines to assist patients to regularly use a pessary, and the remaining 279 facilities (96.2%) left the decision to the attending physician. Two hundred and seventy-three facilities (94.1%) performed scheduled follow-ups during the period of stable pessary use and the preferred interval between visits was three, four and two months in 57.0%, 10.4% and 5.0% of facilities, respectively.

Two hundred and eleven facilities (72.3%) gave some kind of instruction on pelvic floor muscle training (PFMT) as treatment for POP. Gynecologists, nurses, and midwives were responsible for PFMT in 83.8%, 39.4% and 11.6% of these facilities, respectively. PFMT instructions were given within the framework of general outpatient practice in 200 facilities (92.6%). The method of instruction was distribution of handouts about PFMT in 59.0% and specific guidance for self-training in 44.3% facilities.

**Questionnaire B**

Five hundred and ninety-eight responses from individual ob-gyns practicing in Japan were received. The workplaces of the respondents were general hospitals other than universities (58.2%), clinics (26.3%) and university hospitals (14.8%). Looked at in terms of age bracket, the number of respondents in their 40s was the largest, accounting for 185 (30.9%) of the total, followed by those in their 50s (28.6%) and 30s (18.7%). There were 345 male (57.7%) and 253 female (42.3%) respondents. Conservative management was the most commonly used practice for POP, performed by 541 (98.0%). Other widespread management modalities were follow-up assessment (82.8%) and surgical treatment (64.7%). A breakdown of conservative management showed that 486 (88.0%) facilities performed symptomatic treatment with medication and/or behavioral therapy, 462 (83.7%) gave PFMT instruction and 544 (98.6%) used pessaries.

Self-care of the pessary, that is, removal and replacement by the patient herself, was the first line of pessary use in 35 (6.4%), and one of the alternatives in 206 (37.9%). However, the majority of respondents (54.2%) did not recommend self-care of the pessary to their clients.

The majority (93.4%) of the respondents were prescribed estrogen preparations for the treatment of vaginitis and retroperitoneal phlegmonous inflammation. The most preferred route was intravaginal administration and the first line of preparation was an estrogen vaginal tablet.

An inquiry of the incidence of adverse events arising from pessary use revealed that 234 (43.0%) had treated pessary impaction, that is, the inability to remove a pessary because of contracture of the surrounding vaginal wall and 324 (59.6%) had treated vaginal adhesion through the central window of the pessary. Major complications such as rectovaginal fistula \((n = 30)\), colovaginal fistula \((n = 5)\), vesico-vaginal fistula \((n = 10)\), urinary fistula of other types \((n = 7)\) and bacteremia \((n = 12)\) were also reported.

**Subcommittee on Survey of Infectious Diseases in Obstetrics and Gynecology in Japan**

Subcommittee Chairman: Ichio Fukasawa
Committee: Kazuhiro Iwasaku, Katsufumi Otsuki, Kei Kawana, Yasuyuki Noguchi

**Aim**

Our subcommittee aimed to survey mother-to-infant vertically transmitted diseases and neonatal abnormalities caused by sexually transmitted infections (STIs) (chlamydial infection, gonococcal infection, condyloma acuminatum, genital herpes and syphilis).

We investigated methods for diagnosis, and then evaluated high risk factors causing mother-to-infant vertically transmitted diseases and neonatal abnormalities to establish the management of prevention and treatment for mother-to-infant vertically transmitted infections.

**Methods**

We sent a questionnaire (previously listed) to survey the diseases and abnormalities caused by STIs to 628 training facilities in JSOG. We collected answers
from 257 facilities (response rate 41%) and analyzed the data to determine how to manage these conditions.

**Results**

The number of patients with STIs (except syphilis) in this study was similar to that previously reported in Japan. The most common condition was chlamydial infection, followed by genital herpes, condyloma acuminatum and gonococcal infection (Fig. 2).

There was no difference in the treatment of chlamydial infection, gonococcal infection and genital herpes between non-pregnant and pregnant women, but in patients with condyloma acuminatum during pregnancy, a surgical procedure was usually performed.

In patients with genital herpes and condyloma acuminatum, elective cesarean section was performed to prevent vertical transmission through the vagina. Vaginal delivery was performed in most patients with chlamydial infection and gonococcal infection as a result of treatment completion during pregnancy.

The number of patients with syphilis has recently increased with about twice as many cases as there were five years ago (Fig. 3). About a quarter of the pregnant women in the sample with syphilis did not receive prenatal examinations. Women in their teens and 20's accounted for 10% and 50% of the pregnant patients, respectively. Only 10% of all pregnant patients had symptoms.

**Conclusions**

The number of patients with syphilis has recently increased, which may be associated to increased sexual intercourse with foreign partners as a result of globalization. Most patients are asymptomatic, thus it is essential to perform a regular prenatal screening check-up for syphilis to prevent congenital syphilis caused by a lack of treatment during pregnancy.

**Subcommittee on Healthcare for Female Athletes**

Subcommittee chairperson: Toshiro Kubota
Committee: Hiroko Komura, Takashi Takeda, Akira Namba, Sayaka Nose, and Akihiko Wakatsuki
Research collaborators: Satoshi Obayashi, Mari Kitade, Mikako Sunaga, Kunihiko Hayashi, and Mikio Momoeda

This subcommittee conducted a questionnaire among female college athletes to evaluate their health care regarding menstrual cycle abnormalities, stress fractures and premenstrual syndrome over the last year. In this time, the subcommittee reanalyzed the former questionnaire of the athletes group from the point of dysmenorrhea and the usage of oral contraceptives (OC). In Japan, the same hormone contents of OC prescribed for dysmenorrhea. This is called low dose estrogen progestin (LEP) and covered in medical insurance. So in this article, we describe as OC•LEP.

**Introduction**

Female athletes feel of poor physical condition during dysmenorrhea, resulting in lower performance. Accordingly, female athletes need to take countermeasures in advance of a competition. Although the prevalence of dysmenorrhea and the use of OC•LEP in Japanese elite female athletes has previously been
reported, no studies have focused on Japanese college athletes. The aim of this report was to clarify the results of a large-scale questionnaire survey conducted in 2014 by the Japan Society of Obstetrics and Gynecology Subcommittee on Healthcare for Female Athletes in cooperation with the Japan Institute of Sports Sciences, involving about 2000 female athletes in colleges.

Methods
An original self-administered, anonymous questionnaire consisting of questions regarding menstrual state, menstrual frequency, degree of dysmenorrhea and status of medication use for dysmenorrhea was conducted.

Results
Medical examination rate
The medical consultation rate in participants was 26.1%. The reasons for examination (in decreasing order) were irregular menstruation, menstrual cycle control, dysmenorrhea and amenorrhea.

Prevalence and degree of dysmenorrhea
The prevalence of dysmenorrhea in female college athletes was classified as absent, once every two or three months and monthly, with ratios of 17.2%, 42.2%, and 40.6%, respectively (Fig. 4). The influence of dysmenorrhea on sports performance in the 64.1% of female athletes with the condition was also classified into four grades: absent, mild, moderate (lying down) and severe (bed rest all day), with incidence rates of 35.9%, 52.7%, 14.0% and 1.4%, respectively (Fig. 5).

Status of medication use for dysmenorrhea
The status of medication use for dysmenorrhea was classified into absent (43.5%), sometimes (43.5%) and every time (18.1%). Usage rates of either analgesic drugs or LEP were 55.3% and 1.6%, respectively (Table 7). The medication efficacy rate for moderate to severe dysmenorrhea in athletes was determined as 94.5%.

OC•LEP usage rate
The OC•LEP usage rate was classified as present use, past use and never used, and the ratios were 3.2%, 6.0% and 90.8%, respectively. The secondary reason for taking OC•LEP was dysmenorrhea.

Conclusion
In the present study, although 53% of the female college athletes thought their performance was influenced by dysmenorrhea, only a small percentage (30%) took medication during their menstruation. This data might suggest a low usage rate of medication in female athletes while athletic condition or performance was affected by dysmenorrhea. The usage rate of OC•LEP in American female athletes has been reported as 83%. On the other hand, only 1.6% of Japanese college athletes are reported to use OC•LEP, lower in comparison to use among 3000 non-athletes (3.3%). In the present study, the most common reason for taking OC•LEP was to regulate the menstrual cycle; however the greatest anxiety of taking OC•LEP for some athletes and their coaches was body weight gain, which resulted in athletes missing competition events. Recently, many kinds of OC•LEP have
become available that possibly decrease side effects such as body weight gain. We need to educate athletes and their coaches as to these updates.

This fiscal year, the subcommittee will publish guidelines for gynecologists, including dysmenorrhea in female athletes.

**Subcommittee on the Training Program for Women’s Health Care Advisors**

Subcommittee chairperson: Kyoko Tanebe
Committee: Koichi Iwasa, Mika Suzuki, Ruriko Tsushima, and Yutaka Hasuo

**Background**

Japanese women have strong beliefs that ‘Clinics of Obstetrics and Gynecology are only for pregnant women’, and a vast number of women have no idea that gynecologists are experts in women’s health care. Young women, especially adolescents, avoid gynecologists over a fear of transvaginal examination. This prejudice needs to be addressed to make it easier for women to consult with gynecologists.

We planned a program to train women’s health care advisors to educate women on health issues using social enlightenment activities in a school and a company. The program began in 2015. We hope that graduates of the program will play an active part in women’s health throughout their lifetime.

**Operational situation**

When designing the program, the fourth edition of the American Congress of Obstetricians and Gynecologists (ACOG) Women’s Health Guideline was referenced as the best resource. The 2016 program consisted of 24 lectures and 2 workshops. One hundred and three participants completed the program and were identified as women’s health care advisors. Ninety-eight agreed to have their name listed on the Japan Society of Obstetrics and Gynecology (JSOG) website. The 2017 program was revised according to an assessment of lectures in the 2015 program and a questionnaire survey for participants. We selected the lectures that had received a good evaluation and revised the 2016 program, which consisted of 23 lectures and 2 workshops. The number of trainees was confined to 195. One hundred and eighty-four participants completed the program and were identified as women’s health care advisors. One hundred and forty-one agreed to have their name listed on the JSOG website. We chose 180 people from 321 attendance applicants at random in 2017 and carried out the same program as in 2016.

**Assessment of the training program**

To assess the program, we conducted a questionnaire survey on 16 items as follow three times; before, just after the program, and one year after for follow-up.

1. Disorders of pubertal development
2. Menstrual disorders in adolescent
3. Healthcare for female athlete
4. Administration of OC/LEP
5. Adverse effects of hormone therapy
6. Transgender individuals
7. Menopause and hormone therapy
8. Preconception care
9. Psycho-social issues in adolescent
10. Sexual dysfunction
11. Urinary incontinence
12. Reproduction and life design
13. Sexual violence
14. Intimate partner violence
15. Mental healthcare
16. Complementary medicine

The participants could evaluate their support skills at four levels.

**Level 1** Positive support (Taking care of almost patients positively and introducing the patients to the specialized facilities timely)

---

**Table 7 Status of medication use for dysmenorrhea**

| Status          | Total | Analgesic (OTC) | Analgesic | LEP   | Herbal medicine | Others |
|-----------------|-------|-----------------|-----------|-------|-----------------|--------|
| No medication   | 710   | 538 (33.0)      | 75 (4.6)  | 3 (0.2)| 2 (0.1)         | 13     |
| Sometimes       | 625   | 538 (33.0)      | 75 (4.6)  | 3 (0.2)| 2 (0.1)         | 13     |
| Every time      | 296   | 224 (13.7)      | 64 (3.9)  | 231 (1.4)| 4 (0.2)         | 9      |

LEP, low dose estrogen; OTC, Over-the-counter drugs.
Level 2 Possible support (Taking care of the patients as much as possible and introducing the patients to the specialized facilities)

Level 3 Unwilling support (Taking care of the patients with simple complaint only but introducing almost patients to specialized facilities)

Level 4 No support (Introducing all patients to specialized facilities)

In same questionnaire survey, we also asked “How many times sexuality education or health education had been done for social enlightenment in a year after the program.” 140 participants answered the questionnaire before and just after the 2015 program, and 67 responded one year after program.

We compared the level of self-evaluation before and after the program. We used Wilcoxon signed-ranks test to examine statistically significant differences. The level of self-evaluation was significantly improved after the program on all items (Fig. 6).

Therefore, the program was effective for improving the desire to support patients. Themes taken up hardly in annual meetings, such as disorders of pubertal development, transgender individuals, and sexual violence, were especially effective because the participants had little opportunity to study them.

One year later follow-up, only 67 participants answered the questionnaire. However, they had kept the skills of support, as high as the levels just after the program, especially in menstrual disorder in adolescent, administration of OC/LEP, and menopause and hormone therapy (Fig. 6). The ratio of those who worked on sexual or health education for social enlightenment had increased from 39.3% (55/140) before to 68.7% (46/67) one year after the program (Fig. 7).

The program was effective for training women’s health care advisors who have both the desire to support women and the ability to work on social enlightenment activities.
Subcommittee for Revising the Japanese Guidelines on Hormone Replacement Therapy

Subcommittee chairperson: Hiroya Okano
Committee: Satoshi Obayasi, Takumi Kurabayashi, Yoshiko Mochizuki, and Toshiyuki Yasui
Research collaborators: Mariko Ogawa, Kiyoshi Takamatsu, Takeshi Higuchi, Kazuya Makita, and Hideki Mizunuma

Introduction

Since the publication of its first edition in 2009, the basic stance of the hormone replacement therapy (HRT) guidelines has remained the same.

Purpose of developing the guidelines

After the release of the interim report by the Women’s Health Initiative (WHI) in 2002, significant emphasis was placed on adverse reactions, causing healthcare providers to avoid using HRT even when it was needed. In response to such a concerning trend, the HRT guidelines were developed with the aim of correcting the general perception of HRT so that healthcare providers could maintain confidence in prescribing HRT.

Purpose of HRT

The benefits of HRT can be divided into two aspects: one is to alleviate symptoms or treat a disease and the other is to prevent asymptomatic postmenopausal women from developing various diseases associated with estrogen deficiency and help them maintain good health.

Purpose of publishing the HRT guidelines

In general, the aim of clinical practice guidelines is to formulate certain ‘principles’ using evidence-based data to promote standardization of treatment methods for a particular disease. However, it is difficult to establish uniformed criteria for only one treatment approach, such as HRT, as it may risk creating more restrictions on medical practice. Final decisions about the selection or introduction of HRT must be individualized for each patient because of the impact of various factors, such as individual differences in response to female hormones and the patient’s personal view of life. Therefore, healthcare providers need to establish trusting relationships with patients, thoroughly explain the present standard concept and methods of HRT and answer patients’ questions. The HRT guidelines aim to serve as a helpful tool.

Purpose of the 2017 revised edition

The 2017 revised edition aims to re-evaluate the benefits and risks of HRT based on new evidence found since publication of the second edition in 2012, which is the latest updated version available today, and provide the most up-to-date information about HRT.

Framework of the 2017 revised edition

The ‘General Overview’ is comprised of the contents included in the 2009 and 2012 editions modified to include new evidence reported after 2012. Based on the results of ‘the questionnaire survey for the upcoming revision of the HRT guidelines’ conducted among doctors and certified by the Japan Society for Menopause and Women’s Health (JMWH), specific clinical questions concerning the administration of HRT were extracted by the committee. Those questions were then organized into a Clinical Questions (CQ) format and those selected and adopted by the committee are presented in the newly added ‘CQ’ section.

FY 2016 Project Report

2017 HRT guidelines revision committee

The subcommittee for the 2017 revised edition of the HRT guidelines was created as one of the projects undertaken by the Women’s Healthcare Committee of the Japan Society of Obstetrics and Gynecology (JSOG). With the inclusion of those selected by JMWH (Dr. Kiyoshi Takamatsu, Dr. Tsuyoshi Higuchi, Dr. Kazuya Makita, and Dr. Hideki Mizunuma [honorific titles omitted]), a total of nine members comprise the subcommittee.

Evaluation committee for the 2017 revised edition of HRT guidelines

To seek impartial expert evaluations, the following doctors were requested to join the evaluation committee, and all participated: Dr. Toshiro Kubota, Dr. Takeyoshi Okura, Dr. Hisayuki Kaseki, Dr. Hirohisa Kurachi,
Guidelines revision process and the tasks completed in FY 2016

The following are the revision process steps taken in FY2016 (as of March 11, 2017):

1. Request writing committee members to write manuscripts; collect the manuscripts.
2. Check the manuscripts within the subcommittee and make requests for modifications (R-2 manuscripts).
3. Check the manuscripts within the subcommittee and make requests for further modifications (R-3 manuscripts).
4. Check the final version of the manuscripts (R-4 manuscripts) within the subcommittee.
5. Submit the final version of the manuscripts to the evaluation committee.
6. Collect and analyze the comments/requests for modifications received from the evaluation committee.
7. Post the manuscripts that did not receive any comment or request for modifications on the JMWH website to solicit public comments.
8. Send the comments from the evaluation committee to the writers whose manuscripts received comments/requests for modifications to request for clarifications/modifications.
9. Hold the first consensus meeting regarding the manuscripts completed as of October 2016 during the 31st annual meeting of JMWH in Kyoto on November 6, 2016.
10. Prepare the final manuscripts (R-5 manuscripts) within the subcommittee.
11. Post all of the guideline content on the JSOG website to solicit public comments (March 10, 2017).
12. Hold the second consensus meeting during the annual meeting of JSOG in Hiroshima in April 2017.

Table of contents for the 2017 revised edition of HRT guidelines

General Overview (Table 8): (i) Actions/effects expected from HRT, (ii) anticipated adverse events associated with HRT, (iii) the actual HRT practice, CQ (Table 9) and Appendix: Points to note concerning National Health Insurance coverage in menopause and HRT.

Future plan

This project will be completed in the current fiscal year. The 2017 revised edition of the HRT guidelines is scheduled for publication at the 32nd annual meeting of JMWH (November 2017).

Acknowledgments

We are unable to list the names of all of those involved but we would like to extend our sincere and heartfelt gratitude to the doctors in the evaluation committee who checked a large amount of manuscripts in a short time, the doctors in the writing committee who kindly accepted our request to write a manuscript, the doctors in the guideline development committee who spared their time for the project and the doctors who provided their valuable opinions via public comments or the consensus meeting.

Subcommittee for Revising the 2016 Japanese Guidelines for the Proper Usage of Emergency Contraceptives

Subcommittee Chairperson: Kiyoshi Takamatsu
Committee: Tomoko Adachi, Yutaka Osuga, Kunio Kitamura, Jo Kitawaki, Koji Kugu, Tetsu Yano

Table 8 General overview

| I. Expected effects of HRT   |
|-------------------------------|
| 1 Menopause symptoms              |
| 2 Musculoskeletal               |
| 3 Lipid metabolism              |
| 4 Carbohydrate metabolism       |
| 5 Circulation: (i) vascular system (ii) blood pressure |
| 6 Central nervous system: (i) cognitive function (ii) mood |
| 7 Skin connective tissue         |
| 8 Urinary organs                |
| 9 Genital organs                |
| 10 Malignant neoplasm           |
| 11 Dental and oral              |

| II. Anticipated adverse events associated with HRT |
|--------------------------------------------------|
| 1 Abnormal bleeding                              |
| 2 Breast pain                                    |
| 3 Headache                                       |
| 4 Breast cancer                                  |
| 5 Atherosclerosis                                |
| 6 Stroke                                         |
| 7 Venous thromboembolism                         |
| 8 Endometrial cancer                             |
| 9 Ovarian cancer                                 |
| 10 Other tumor                                   |

| III. Actual HRT practice                         |
|--------------------------------------------------|
| 1 Cases of contraindications and careful administration |
| 2 Types and characteristics of HRT drugs         |
| 3 Pattern and route of administration and dosage |
| 4 Drug interactions                              |
| 5 Management before/during/after administration  |
| 6 Algorithms for indications and management      |

HRT, hormone replacement therapy.
As a result of a change in the amount of levonorgestrel (LNG) contained in one tablet for emergency contraception (April 2016), and because 5 years have passed since the publication of the first version of the Japanese Guidelines for the Proper Usage of Emergency Contraceptives, the JSOG planned to revise these guidelines.

The main points of revision included an emphasis on the higher effectiveness and safety of LNG pills relative to that of the Yazpe regimen, the addition of post-marketing surveillance study results of LNG pills in Japan and a renewal of references.

Public comments were requested, and revisions were made as deemed appropriate. The revised guidelines were ultimately launched on the JSOG website (http://www.jsog.or.jp/activity/pdf/kinkyushishin_H28.pdf) in September 2016.

### Table 9 Clinical questions

| I. Symptom/disease | CQ101 | Is HRT effective for treating joint pain? |
|--------------------|------|------------------------------------------|
|                    | CQ102 | Is HRT effective for treating insomnia?  |
|                    | CQ103 | Is HRT effective for treating lower back pain? |
|                    | CQ104 | Is HRT effective for treating pelvic organ prolapse (POP)? |
|                    | CQ105 | Is HRT effective for treating glossodynia? |
|                    | CQ106 | Can HRT improve sexual function? |
|                    | CQ107 | Is HRT effective for treating coronary spastic angina? |
|                    | CQ108 | Is estrogen administration recommended before/after surgical treatment of POP? |
|                    | CQ109 | Is HRT effective for treating overactive bladder (OAB)? |

| II. Pathology/medical history/smoking | CQ201 | Can HRT be administered in smokers? |
|--------------------------------------|------|------------------------------------------|
|                                      | CQ202 | Can HRT be administered in obese women? |
|                                      | CQ203 | Can HRT be administered in women with endometriosis? |
|                                      | CQ204 | Can HRT be administered in women with hypertension? |
|                                      | CQ205 | Can HRT be administered in women with diabetes? |
|                                      | CQ206 | Is HRT recommended for women with premature ovarian insufficiency? |
|                                      | CQ207 | Is HRT recommended after cervical cancer treatment? |
|                                      | CQ208 | Is HRT recommended after endometrial cancer treatment? |
|                                      | CQ209 | Is HRT recommended after ovarian cancer treatment? |
|                                      | CQ210 | Is HRT recommended for women with BRCA1 or BRCA2 mutation carriers? |
|                                      | CQ211 | Is HRT recommended for women without symptoms of estrogen deficiency? |

| III. Drugs | CQ301 | Can oral estriol be used alone in women with intact uterus? |
|------------|------|----------------------------------------------------------|
|            | CQ302 | Can the levonorgestrel-releasing intrauterine system (LNG-IUS) be used as a progestin in HRT? |
|            | CQ303 | Can a selective estrogen receptor modulator (SERM) be used to protect the endometrium in HRT? |

| IV. Initiation/discontinuance | CQ401 | Is there any association between the timing of HRT initiation and adverse events? |
|-----------------------------|------|--------------------------------------------------------------------------------|
|                             | CQ402 | Can HRT be administered in patients aged 60 years and older? |
|                             | CQ403 | How long can HRT be administered? |
|                             | CQ404 | Is a gradual taper effective for women preparing to discontinue HRT? |
|                             | CQ405 | Should HRT be discontinued during a perioperative period? |

| V. Others | CQ501 | What is the appropriate action to take when abnormal vaginal bleeding is noted during the administration of HRT? |
|-----------|------|----------------------------------------------------------|
|           | CQ502 | Is the use of so-called ‘placenta’ (placental extract) recommended as menopausal hormone therapy? |

HRT, hormone replacement therapy; POP, pelvic organ prolapse.

**Disclosure**

Kiyoshi Takamatsu received lecture fees from Otsuka Pharmaceutical Co., Ltd., Bayer Yakuhin, Ltd., Pfizer Japan Inc. and ASUKA Pharmaceutical Co., Ltd. Jo Kitawaki received lecture fees from Bayer Yakuhin, Ltd., Mochida Pharmaceutical Co., Ltd. and Takeda Pharmaceutical Co., Ltd. and grants from NICHIMO BIOTICS Co., Ltd.

**Author contributions**

All authors have read and approved the final version of the manuscript.