Tzu-Ya Wang 王姿雅
(Y18)

The oncologic and reproductive outcomes after fertility-sparing surgery in ovarian and endometrial cancers

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Objective: To evaluate the oncological and reproductive outcomes of fertility preservation in reproductive-aged patients diagnosed with ovarian cancer (OC) and endometrial cancer (EC).

Background: Ovarian cancer (OC) and endometrial cancer (EC) are common gynecological malignancies diagnosed in reproductive-aged individuals. Surgery is the definitive procedure for staging and treatment of both OC and EC. However, for patients desiring future pregnancies, it is crucial to provide oncological treatment while preserving fertility whenever feasible.

Methods: A retrospective cohort study was conducted on women under the age of 45 diagnosed with OC or EC who underwent fertility-sparing surgery (FSS) between January 2019 and December 2023 at Taipei Veterans General Hospital, a national medical center in Taiwan. The study evaluated treatment outcomes, including fertility preservation strategies, oncological outcomes (recurrence rates and recurrence-free survival [RFS] following recurrence), and fertility outcomes, such as the number of oocytes retrieved, fertilization rates, and clinical pregnancy rates.

Results: A total of 165 patients aged 18 to 45 years at the time of initial diagnosis were reviewed. Among these, 25.5% (23/90) of patients with EC and 34.6% (26/75) of patients with OC underwent fertility-sparing surgery (FSS). FSS was considered for patients with stage IA EC, stage I OC, and borderline ovarian tumors. Among those who underwent FSS, ten patients utilized assisted reproductive technologies, including eight who underwent oocyte cryopreservation and three who opted for embryo cryopreservation. Five patients achieved pregnancy, and three had live births.

Conclusion: Fertility-sparing surgery may be a viable option for patients with early-stage ovarian and endometrial cancers who wish to preserve fertility. However, this approach carries a risk of recurrence. Therefore, a thorough understanding of the associated risks and benefits, along with a well-structured follow-up plan, is essential prior to surgery.

Tyan-Shin Yang **楊恬欣**
(Y19)

Anti-B and T lymphocyte Attenuator (BTLA) can be a Potential Target of Immunotherapy in Epithelial Ovarian Cancer (EOC)

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Objective: Analyzing peripheral blood mononuclear cells (PBMCs) to assess the effect of BTLA in immunotherapy for advanced epithelial ovarian cancer. (EOC)

Methods: Preoperative PBMCs from 69 advanced EOC cases were collected to analyze the correlation between IC-expressing immune cells and survivals of patients. The co-expression of various ICs on T lymphocytes from these patients was assessed using the t-distributed stochastic neighbor embedding algorithm. The activation potential of programmed cell death 1 (PD-1)+ herpes virus entry mediator (HVEM)+ T cells in PBMCs from healthy donors, as well as the tumoricidal capabilities of PBMCs treated with various immune checkpoint inhibitors (ICIs), were evaluated in vitro. The effects of the respective ICIs on T cell activation in PBMCs were investigated as well.

Results: The percentages of PD-1+ helper and cytotoxic T cells in the PBMCs of patients were positively associated with both disease-free survival and overall survival. The co-expression of HVEM on these PD-1+ T lymphocytes was distinctly characterized. Prediction potential for overall survival based on the subpopulations of PD-1+ helper or cytotoxic T cells surpassed that of other parameters. The PD-1+HVEM+ helper and cytotoxic T cells exhibited features of an activated phenotype in response to activation signals. PBMCs treated with anti-B and T lymphocyte attenuator (BTLA) along with anti-cytotoxic T lymphocyte antigen 4 (CTLA-4) or anti-PD-1 antibodies demonstrated strong tumor-killing capabilities. Anti-BTLA antibodies can promote T cells within the PBMCs toward an effector status.

Conclusions: Percentages of PD-1+ T cells in the PBMCs could predict survivals of EOC patients. Targeting HVEM-BTLA axis may be considered for current ICI treatment of EOCs. The percentages of PD-1+ T cells in PBMCs could predict the survival of patients with EOC. Targeting the HVEM-BTLA axis may be a viable consideration for current ICI treatment of EOCs.

Chien-Hsiang Kao 高健祥
(Y20)

Real-World Analysis of Pembrolizumab in Gynecologic Cancer: Efficacy, Adverse Events and Correlation with Clinical and Pathological Features

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Objective: This study aims to present our real-world analysis of pembrolizumab including efficacy, adverse events and correlation with clinical and pathological features in gynecologic cancer.

Materials and Methods: The study included patients who had received pembrolizumab treatment at Kaohsiung Chang Gung Memorial Hospital from May 2017 to July 2024 and who were pathologically diagnosed with gynecological malignancies. In addition to clinical parameters, pathologic features and treatment outcomes as well as immune-related adverse events (irAEs) and the management were documented. Correlations between these would be analyzed.

Result: Eighty-three patients were identified in this analysis. The best overall response of an objective response rate (ORR) was 40.9%. IrAE of any grade occurred in around half of patients with the most common was dermatitis followed by hypothyroidism and hyperthyroidism. Among all patients, 7% of them presented with grade 3 adverse events. There were no documented fatalities attributed to irAEs, and no grade 4 irAEs were identified within our cohort. Furthermore, patient with irAEs had significantly better objective response rate compared to those without irAEs.

Conclusion: The observed efficacy of pembrolizumab and incidence of irAEs in gynecology oncologic patients undergoing pembrolizumab treatment was comparable to that reported in previous studies. Our experience with irAEs underscores the importance of timely identification, a comprehensive understanding of management, and early intervention in immunotherapy.

Hao-Yang Chang **張皓揚**
(Y21)

Should early-stage grade 3 endometrial endometrioid adenocarcinoma be treated as 2023 FIGO stage IIC?

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According to the FIGO 2023 staging system for endometrial cancer, grade 3 endometrioid was classified as aggressive type which involved traditional type 2 endometrial cancer. Historically, grade 3 endometrioid adenocarcinoma was managed with local treatment, whereas type 2 endometrial cancer required the addition of systemic treatment. Some study emphasized the importance of addition systemic treatment for grade 3 endometrioid adenocarcinoma due to poorer prognosis.

This study aims to clarify whether early-stage (stage IA – stage II) grade 3 endometrioid adenocarcinoma should be considered as type 2 endometrial cancer and followed the same treatment strategy. Additionally, a subgroup analysis will explore the prognostic differences between FIGO 2023 stage IC and stage IIC patients.

We conducted a retrospective study involving patients diagnosed with early-stage grade 3 endometrioid adenocarcinoma and type 2 endometrial cancer between 2019 to 2024 in MacKay Memorial Hospital. Patients were categorized based on whether they received local treatment alone or combined local and systemic therapy. Survival outcomes, including overall survival (OS) and disease-free survival (DFS), were analyzed. Subgroup analyses were performed to assess prognostic differences between FIGO 2023 stage IC and stage IIC patients.

A total of 49 patients with early-stage grade 3 endometrioid adenocarcinoma and 49 patients with type 2 endometrial cancer were included. Patients with grade 3 endometrioid adenocarcinoma who received only local therapy had similar OS and DFS to those with type 2 endometrial cancer who received systemic treatment. Subgroup analysis revealed that FIGO 2023 stage IIC patients had worse prognoses compared to stage IC patients, regardless of histological type.

In conclusion, early-stage grade 3 endometrioid adenocarcinoma have a favorable prognosis even when managed with local treatment alone, challenging the necessity of adding systemic therapy. The prognostic differences between FIGO 2023 stage IC and stage IIC further support the need for tailored treatment strategies. Further prospective studies are recommended to confirm these findings and optimize management approaches for patients with early-stage grade 3 endometrioid adenocarcinoma.

Ta-Cheng Lee **李大成**
(Y22)

Gravity versus Pump Infusion of Distending Media for Hysteroscopic Myomectomy: A Retrospective Cohort Study

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Objectives: To compare the clinical outcomes between gravity and pump infusion methods for administering distending fluid while performing hysteroscopic myomectomy.

Methods: Clinical and perioperative outcomes of women who underwent hysteroscopic myomectomy with distending fluid infusion by gravity (n=64) or pump methods (n=34) were reviewed.

Results: Immediate (1.23±0.84 vs. 0.64±0.64, p<0.001) and 30 minutes later (0.99±0.49 vs. 0.67±0.33, p<0.001) postoperative pain scores in the recovery room were higher in the gravity group, compared to the pump group. Multivariable regression analysis revealed that the use of the pump infusion method was a predictor of a lower immediate (coefficient = -0.50, 95% confidence interval (CI)= -0.91 to -0.10, p=0.015) and 30 minutes later (coefficient= -0.33, 95% CI = -0.56 to -0.09, p=0.006) postoperative pain score. However, the volume of infused fluid, the volume of collected fluid, the fluid deficit and surgical time did not differ between these two groups.

Conclusions: The pump infusion method appear to be associated with postoperative pain, compared to gravity infusion.

I-Chieh Sung 宋怡潔
(Y23)

The Therapeutic Effect of Monopolar Radiofrequency Therapy on Urinary Symptoms and Sexual Function

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Objectives: Stress urinary incontinence (SUI) negatively affects the quality of life and sexual function in women. This study aimed to evaluate the efficacy of radiofrequency (RF) therapy in reducing SUI symptoms and its impact on sexual function.

Methods: Thirty-four women with SUI were enrolled and underwent a single RF treatment session using the Viveve® System (Viveve Medical Inc., USA) with parameters of 90 J/cm2 and 220 pulses per hour. Assessments at baseline and 6 months post treatment included perineal ultrasound and personal interviews to evaluate lower urinary tract symptoms and sexual function. Urodynamic studies, voiding diaries, and questionnaires such as the Female Sexual Function Index (FSFI), Overactive Bladder Symptom Score(OABSS), Urogenital Distress Inventory-6 (UDI-6), Incontinence Impact Questionnaire-7 (IIQ-7), and International Consultation on Incontinence Questionnaire—Short Form (ICIQ-SF) measured outcomes.

Results: RF therapy significantly improved sexual function, with higher FSFI scores in all domains except pain at 6 months. SUI symptoms were significantly reduced, as indicated by improved scores on OABSS, UDI-6, IIQ-7, and ICIQ-SF, alongside better voiding diary results. Anatomical changes included reduced bladder neck mobility, decreased vaginal width, and a reduced rotation angle of the proximal urethra.

Conclusions: RF therapy is effective and safe for treating mild to moderate SUI and enhances sexual function, potentially due to changes in vaginal topography. These results suggest RF therapy as a viable non-surgical option for managing SUI and improving sexual health.

Ya-Chu Wu 吳雅筑
(Y24)

Extracorporeal shockwave therapy for women’ s pelvic floor myofascial pain: A retrospective cohort study

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Objective: Chronic pelvic pain (CPP) is a common problem affecting the quality of life of women worldwide. Pelvic floor myofascial pain (PFMP) is a common cause of CPP. The therapeutic effect of extracorporeal shock wave therapy (ESWT) on women with PFMP is poorly understood. We aimed to explore the therapeutic effect of ESWT on PFMP and pelvic floor dysfunction scores.

Methods: Twenty female patients with PFMP were enrolled in this study from July 2022 to February 2024 and underwent ESWT. Every patient underwent a comprehensive initial assessment that involved a detailed medical history and thorough physical examination. The baseline symptoms evaluation of each patient was assessed using the Visual Analogue Scale (VAS) and Pelvic Floor Disability Inventory-20 (PFDI-20). Patients positioned in lithotomy received ESWT treatment at perineum once a week for four consecutive weeks, with 2000 pulses administered at each session.

Results: The median age was 55 years (IQR: 47.5-63.0). Compared to the baseline parameters, the median VAS decreased significantly from 7.0 to 2.0 after four weeks (p=0.0002). The median PFDI-20 decreased from 33.0 to 26.5 after four weeks (p=0.0002). In the subgroup of PFDI-20, the median Pelvic Organ Prolapse Distress Inventory-6 (POPDI-6) score decreased from 11 to 8.0 (p=0.0002), the median Colorectal-Anal distress Inventory 8 (CRAD-8) score decreased from 13 to 10 (p=0.0129), and the Urinary distress Inventory 6 (UDI-6) score decreased from 10 to 9 (p=0.0042) after four-week treatment.

Conclusions: ESWT therapy might be a safe and effective treatment for managing patients with PFMP. However, larger prospective trials are required to validate our findings.