稿件編號：OG1

臨時稿件編號：
1003

骨盆腔充血症候群的藥物治療: 台北市立聯合醫院初步結果
Medical treatment for pelvic congestion syndrome with flavonoid: the preliminary results in Taipei city hospital

林姿吟 [1] 李怡慧 [1]
台北市立聯合醫院仁愛院區婦產科 [1]

論文發表方式：
口頭報告

論文歸類：
一般婦科

Abstract:
Introduction:
The objective is to determine the difference of the venous size and the improvement of quality of life after flavonoid treatment for the patients with pelvic congestion syndrome (PCS).

Materials and methods:
We collected ten cases that were diagnosed with PCS since Jan, 2022. Ultrasound was performed in every case before and after medical treatment every 3 months. Flavonoid 500mg twice or 1000mg once daily was given. Symptoms were evaluated by Pelvic Varicose Vein Questionnaire (PVVQ), and Visual Analog Scale (VAS). We compare the ovary vein diameter, PVVQ score and VAS before and after medical treatment using one-way ANOVA.

Results:
Between January 2022 to September 2023, 11 women (age 47-64 years old, mean=57 y/o) were diagnosed with pelvic congestion syndrome. One was unable to contact through phone, thus PVVQ and VAS was unable to obtain. 90.9% (n=10/11) patients reported significant decrease of VAS (mean 5.9 vs. 2.5, $p<0.01$) and PVVQ (mean 51.6 vs. 30.5, $p<0.01$). Follow up ultrasound also showed decrease in ovarian vein mean diameter, from 8.2mm to 6.25mm ($p<0.01$).

Conclusions:
In women with PCS, conservative treatment with flavonoid was associated with significant reduction of PVVQ and VAS scores. The diameter of venous diameter is decreased obviously after flavonoid treatment. Flavonoid may be considered a first line treatment for PCS in routine clinical practice.

稿件編號：OG2

臨時稿件編號：
1006

卵巢雄性細胞瘤 NOS 中與缺氧相關的基因特徵
Hypoxia-associated genetic signature in ovarian steroid cell tumor NOS

李佳樺[1] 趙安琪[1] 吳凱筠[1] 黃慧君[1] 賴瓊慧[1]
林口長庚紀念醫院婦產部[1]

論文發表方式：
口頭報告

論文歸類：
一般婦科

Introduction:
Steroid cell tumors, not otherwise specified (SCT-NOS), are uncommon ovarian tumors that exhibit a spectrum of behavior ranging from benign to malignant. They resemble Leydig cell tumors histologically but differ by the absence of Reinke crystals. SCT-NOS can result in various clinical manifestations, including virilization, by exerting pressure on adjacent abdominal organs and producing excessive androgens.
Objectives:
We aimed to characterize the clinical features, explore the genetic landscape, and evaluate the recurrence rate of SCT-NOS in women.
Materials and Methods:
We utilized high-throughput sequencing, TruSight Oncology 500 and/or whole-exome sequencing to analyze the genetic profile of SCT-NOS. The study involved eight women diagnosed over two decades, employing formalin-fixed, paraffin-embedded ovarian tissue samples for the analyses.
Results:
The median age of patients was 37 years, with clinical presentations ranging from abnormal uterine bleeding to virilization. Two out of the eight patients experienced disease recurrence. Seven of the eight samples were available for genetic analysis. The study identified several hypoxia-related genes, including HIF1A, VHL, SDHB, SRC, IDH2, and FOXO4.
Conclusions:
Our study provides valuable insights into the clinical and genetic landscape of SCT-NOS. The identification of several mutations in the samples examined may serve as potential therapeutic targets for these rare tumors. Further research is needed to validate these findings and explore their clinical relevance.

稿件編號：OG3

臨時稿件編號：
1106

子宮內膜切除術與隨後的子宮內膜切除術之間的時間範圍：2000 年至 2017 年人群回顧性世代研究

Timeframe Between Transcervical Resection of the Endometrium and Subsequent Hysterectomy: A Population-based Retrospective Cohort Study from 2000 to 2017

徐詠琳 [1] 丁大清 [1]
花蓮慈濟醫院婦產部 [1]

論文發表方式：
口頭報告

論文歸類：
一般婦科

Study objective: To evaluate the efficacy of transcervical resection of the endometrium (TCRE) for the treatment of abnormal uterine bleeding (AUB) in Taiwan.
Design: A population-based retrospective cohort.
Setting: The Taiwan National Health Insurance Database were utilized this nationwide retrospective cohort study.
Patients: This study involved 2,674 participants who underwent TCRE due to AUB.
Interventions: The study focused on females aged ≥40 years diagnosed with AUB who underwent TCRE between 2000 and 2017. Hysterectomy outcomes were analyzed using the Cox proportional hazards model, and age was categorized into 3 groups (40–44, 45–49, and
46 ≥50 years). Statistical significance was set at $p<.05$.
Measurements and Main Results: This study involved 2,674 participants with an average age of 46.9 years, categorized into the following age groups: 40–44 years (39.2%), 45–49 years (36.3%), and ≥50 years (24.5%). Approximately 8.7% of participants required hysterectomy treatment; the highest incidence was observed in the 40–44-year age group (9.9%). The median time from transcervical endometrial resection to hysterectomy varied across age groups, ranging from 0.33–1.24 years. Cox regression analysis revealed a lower, albeit statistically insignificant, risk of hysterectomy in the 45–49 and ≥50-year age groups than in the 40–44-year age group. Kaplan–Meier survival curves demonstrated a comparable likelihood of hysterectomy across age groups within 5 years post-TCRE, with most occurrences occurring in the initial 5 years.
Conclusion: Our findings elucidate the risk of subsequent hysterectomy after TCRE. This study contributes significant understanding into TCRE outcomes, aiding information for patients seeking AUB surgical option

稿件編號：OG4

臨時稿件編號：
1044

脂肪幹細胞培養基減輕子宮纖維化並改善子宮腺肌症的在位子宮內膜容受性
Conditioned Media of Adipose-derived Stem Cells Mitigate Fibrosis with Improved Eutopic Endometrial Receptivity of Adenomyotic Uteri

黃瑟德[1,2] 黃俊諺[1] 徐歷彥[3] 黃昱豪[4] 游雅君[1] 桂羅利[1] 洪韻翔[1]
義大醫院婦產部[1] UniversityofSouthFlorida[2] 義大癌治療醫院細胞治療中心[3] 義大大昌醫院整型外科[4]

論文發表方式：
口頭報告

論文歸類：
一般婦科

Introduction: Adenomyosis is manifested by the invasion of endometrial glands and stroma into myometrium and uterine fibrosis. It results in dysmenorrhea, pelvic pain, menorrhagia, and subfertility in reproductive age women. The etiology and pathophysiology of adenomyosis remain unclear. Although both surgical and medical treatments are available, the recurrence rate stays elevated. Mesenchymal stem cells display effects on not only tissue regeneration, but also immune regulation. Adipose tissue is an abundant source of multipotent mesenchymal adipose-derived stem cells (ADSCs). Thus, the current study aimed to test the effects of ADSCs on the reversal of uterine fibrosis as well as the improvement of adenomyosis and eutopic endometrial receptivity.
Methods: ADSCs isolated from lipoaspiration-generated adipose tissue and their conditioned media (ADSC-CM) were subjected to quality validation under Good Tissue Practice and Good Manufacturing Practice regulations. An adenomyosis mouse model was established by treating with tamoxifen (TAM) at post-natal days (PNDs) 1 to 4 followed by treating with basal medium, ADSCs (2x105 cells), ADSC-CM or ADSCs+ADSC-CM at PND42. The survival of XTag-labeled ADSCs was verified by fluorescent microscopy and immunohistochemistry (IHC) of human nuclear antigen. Whether ADSCs differentiated to other cell types was confirmed by examining markers of various cell types. Fibrosis was evaluated by Masson trichrome stain. Epithelial-mesenchymal transition (EMT) was checked by quantitative reverse transcription polymerase chain reaction (qRT-PCR) and IHC of α-SMA, vimentin and E-cadherin. Matrix metalloproteinases (MMPs) and their degrading enzymes (TIMP-1 and TIMP-2) were assessed by qRT-PCR and IHC. Moreover, the mice were allowed to mate and deliver. The endometrial receptivity was examined and the pregnancy outcomes were recorded.
Results: ADSCs remained viable in the uterus of adenomyotic mice without differentiating into endothelial cells and endometrial stromal cells 3 weeks after treatment. ADSCs and ADSC-CM both reduced fibrosis, EMT, and collagen I expression. The uterine expression of MMP-2/TIMP-2, MMP-9/TIMP-1, LIF, HOXA10, and HOXA11 was increased by ADSC-CM in mice with adenomyosis. Furthermore, the resorption rate was reduced, while the number of live birth/dam was increased by ADSC-CM in mice with adenomyosis.

Conclusion: ADSC-CM successfully reversed uterine fibrosis and EMT via degrading fibrotic tissues, while improved endometrial receptivity and pregnancy outcomes in adenomyotic mice. These findings can be potentially translated to clinical treatment of adenomyosis.

稿件編號：OG5

臨時稿件編號：
1147

曾接受放射線和 Bevacizumab 治療子宮頸癌患者的膀胱陰道和直腸陰道瘻管的風險

The Risk of Vesicovaginal and Rectovaginal Fistula in a Cervical Cancer Patient Treated with Previous Radiotherapy and Bevacizumab

李耀泰 [1] 鄭雅敏 [1] 朱益志 [1] 關龍錦 [1] 林大欽 [1] 郭宗正 [1]
郭綜合醫院婦產部 [1]

論文發表方式：
口頭報告

論文歸類：
一般婦科

Introduction
Cervical cancer is the fourth most common cancer in women worldwide. Chemoradiotherapy is the standard definitive treatment for locally advanced cervical cancers. Moreover, the addition of bevacizumab to the chemotherapy regimen improves survival of those with recurrent, persistent or metastatic cancer. The pitfall is that bevacizumab increases the risk of gastrointestal and/or urinary bladder fistula in patients with a previous history of pelvic radiation. We report on a case of vesicovaginal and rectovaginal fistula after chemoradiotherapy for primary cervical cancer, followed by bevacizumab to treat persistent tumor.
Case Report
A 44-year-old woman was newly diagnosed with adenocarcinoma of the uterine cervix in April 2017. She had a history of hypertension diabetes and smoking (1 pack/day) for many years. Bimannal pelvic examination revealed a tumor in the uterine cervix, with bilateral parametrial involvement nearly reaching the pelvic wall. Cervical biopsy revealed adenocarcinoma. Computed tomography images revealed a tumor in the uterine cervix (7 x 6 cm), diagnosed as stage IIIB, and having possible invasion of the urinary bladder and rectum. However, a cystoscopic examination revealed negative finding on the 24th of April 2017; completed removal of a 5 mm polyp in the rectum was performed during a sigmoidoscopic examination on the 26th of April 2017, in which the pathological report was interpreted as having a neuroendocrine tumor (G1, carcinoid). She received CCRT (concurrent chemoradiation therapy) with carboplatin, paclitaxel and bevacizumab for the whole pelvis within two months. Subsequently, she underwent total hysterectomy and bilateral salpingo-oophorectomy on May 1st 2018 because of the presence of cancer cells in endocervical curettage. The pathology report of the uterus identified a residual tumor mass (2.5 x 2.3 cm) in the endocervical cancer. She then underwent 23 courses of chemotherapy consisting of carboplatin, paclitaxel and bevacizumab from May 2018 to March 2022 because of persistent/recurrent cervical cancer and poor compliance with the asymptomatic period. The presence of fluctuated elevation upper limits of CEA 749.8 ng/mL, CA125 901.9 U/mL, CA199 191.8 U/mL, and SCC 2.9 ng/mL were found on Nov. 15, 2022.
On Dec. 25, 2022 (68 months later), the patient experienced leakage of bloody urine from the vagina. Magnetic Resonance Imaging (MRI) showed vesicovaginal fistula (Fig 1), bilateral hydronephrosis and pelvic lesion on Dec. 26, 2022. In addition, bilateral percutaneous nephrostomy was performed to preserve renal function on Dec. 27, 2022. The patient then received pembrolizumab (anti-programmed death 1, PD-1, monoclonal antibody) of 200 mg twice on Jan. 17, 2023 and Feb. 1, 2023 respectively, and the tumors markers subsequently declined to CEA 220.4 ng/mL, CA125 161.5 U/mL, CA199 35.1 U/mL, and SCC 2.0 ng/mL. Unfortunately, she was found to have stool leakage from the vagina, and lower GI series identified recto-vesical fistula on Feb. 27, 2023 (Fig 2). The patient was then referred to National Chung Kung Medical Center for further evaluation and treatment (after which she expired on Sep. 17, 2023).
Discussion
Bevacizumab is a monoclonal antibody acting against vascular endothelial growth factor that exerts antitumor effect by preventing tumor angiogenesis. Bevacizumab has been shown to improve the outcome of patients with gynecologic malignancies. In a

	2014 GOG240 study, Tewari et al reported that addition of bevacizumab to chemotherapy prolongs the overall survival of patients with metastatic, persistent, or recurrent cervical cancer (i.e., 16.8 months versus 13.3 months, with a hazard ratio of 0.77), and bevacizumab therapy provided a significant improvement in overall survival by four months; however, adverse effects were often severe and sometimes fatal. Based on the promising results from the GOG 240, guidelines and policies in many countries have permitted a proven use of bevacizumab in combination with chemotherapy in the management of patients with far-advanced, persistent and/or recurrent or metastatic conditions. Recently, several articles reported that using bevacizumab before or after radiotherapy increased the risk of fistula formations with cervical cancer. In a Korean report, 249 stage I-IV cervical cancer patients were treated with radiotherapy alone, and 53 patients were treated with radiotherapy before or after bevacizumab. The 3-year cumulative fistula incidence rate was significantly higher in the radiotherapy + bevacizumab group than in the radiotherapy group (27.0% vs 3.0%, HR: 4.76, $p<0.001$). Therefore, in patients with cervical cancer treated with pelvic radiation, the addition of bevacizumab substantially increased the risk of fistula formation. Conclusion Previous radiation patients may not be good candidates to consider for the addition of bevacizumab for rescue therapy. Bevacizumab (Avastin®) in persistent or recurrent cervical cancer patients prolongs survival by a few months but is highly toxic.

稿件編號：OG6

臨時稿件編號：
1187

罕見案例報告：以停經後出血以及子宮內膜不典型增生做為臨床表現的卵巢支持間質細胞瘤

Ovarian Sertoli-Leydig cell tumor with hyperestrogenism presented with postmenopausal bleeding and endometrial hyperplasia: unusual case

李函靜[1] 莊斐琪[1] 林浩[1]
高雄長庚紀念醫院婦產部[1]

論文發表方式：
口頭報告

論文歸類：
一般婦科

Introduction: Ovarian Sertoli-Leydig cell tumor (SLCT) is a subtype of ovarian sex cord stromal cell tumor, which is extremely rare and accounts of less than 0.5% of ovarian tumors. Sertoli-Leydig cell tumor usually occurs in young woman that only less than 10% occur either prior to menarche or postmenopausally and often presented with androgen secretion, leading to virilization. Association with hyperestrogenism in postmenopausal women is rather rare and could be easily misdiagnosed.

Case report: We reported a rare case of SLCT in a postmenopausal woman aged 66 years who presented with intermittent postmenopausal vaginal bleeding for 3 months. She had suffered from similar symptoms during past 6 years and had received fraction D&C or hysteroscopy transcervical resection for 4 times, with previous three pathology reports showed no evidence of malignancy and the latest result of the endometrial curettage revealed atypical hyperplasia. Transvaginal ultrasound revealed endometrium thickness of 1.53 cm and bilateral ovary without enlargement. A blood examination showed an elevated estradiol level 75.64 pg/mL and slightly suppressed folliclestimulating hormone (FSH) 31.8 mIU/mL. We conducted robotic vaginal natural orifice transluminal endoscopic surgery (vNOTES) hysterectomy and bilateral salpingo-oophorectomy. The result of pathological diagnosis was endometrial atypical hyperplasia and SLCT in moderately differentiation of the left ovary as an incidental finding. A blood examination after a month postoperatively revealed an elevated FSH level of 76.90 mIU/mL and depressed estradiol level of 7.4 pg/mL.

Discussion: Preoperative diagnosis of OSLCT is difficult when clinical manifestations are not obvious and ovarian tumor is too small to be detected by imaging examination. This case suggests that hyperestrogenism could be associated with SLCT in a small portion of postmenopausal women even in absence of endocrine symptoms or virilization

稿件編號：OG7

臨時稿件編號：
1216

在以 Tamoxifen 誘發子宮肌腺症的小鼠上使用間質幹細胞培養液對抗子宮肌腺症所導致的纖維化

Harnessing Mesenchymal Stem Cell Conditioned Medium to Combat Adenomyosis-Induced Fibrosis in a Tamoxifen-Induced Mouse Model

洪韻翔[1] 黃瑟德[1]
義大醫院婦產部[1]

論文發表方式：
口頭報告

論文歸類：
一般婦科

Harnessing Mesenchymal Stem Cell Conditioned Medium to Combat Adenomyosis-Induced Fibrosis in a Tamoxifen-Induced Mouse Model

Abstract：

Introduction: Adenomyosis is characterized by the infiltration of endometrial glands and stroma within the myometrium, leading to various debilitating symptoms such as subfertility, pelvic pain, hypermenorrhea, dyspareunia, and dysmenorrhea. While current treatments, such as GnRH-a therapy with add-back estrogen, offer limited benefits, the associated side effects of hypogonadism and increased osteoporosis risk pose significant challenges. Epithelial-mesenchymal transition (EMT) has emerged as a critical contributor to adenomyosis development, highlighting the urgent need for innovative therapeutic strategies targeting EMT and fibrosis. Mesenchymal stem cells (MSCs) derived from adipose tissue or such gestational tissues as umbilical cord, amniotic fluid, and placenta, have shown promise in treating adenomyosis. However, recent research suggests that the therapeutic effects of MSCs stem from their conditioned media containing secretome and extracellular vesicles that offer several advantages over whole-cell therapy.

Methodology: In this study, we established an adenomyotic mouse model by tamoxifen administration. Subsequently, the mice were treated with direct infusion of human adipose-derived mesenchymal stem cell-conditioned medium (ADSC-CM) into the uterus. Uterine tissues were collected on day 21 after treatment for analyses.

Results: Remarkably, mice treated with ADSC-CM exhibited significant improvements, including the regression of fibrotic changes and the restoration of fertility. Notably, the treatment led to a reduction in immune cell infiltration and a mitigation of collagen deposition. Furthermore, the ADSC-CM were demonstrated to suppress EMT in myometrium, enhance uterine matrix-metallopeptidase 9 expression and reduce tissue inhibitor of metalloproteinases 1 expression for efficient collagen degradation and promote HOXA-10 expression in the eutopic endometrium, thus enhancing fertility.

Conclusion: ADSC-CM reduced development of adenomyosis and fibrogenesis in the uterus and improved the endometrial receptivity.