(23)

癌症與懷孕

Cancer and Pregnancy

時　　間：114 年 6 月 2 8 日(星期六) 13:20~17:00
地　　點：臺北榮民總醫院 長青樓一樓護理館會議廳

13:20-13:30	***Opening Remarks***	陳怡仁教授 Yi-Jen Chen
	座長：陳怡仁 主任 (Yi-Jen Chen) **洪煥程 主任 (Huann-Cheng Horng)**	
13:30-14:00	子宮頸癌前病變與子宮頸癌在孕期中的處置 Management of CIN lesions and cervical cancer in pregnancy	陳楨瑞教授 Jen-Ruei Chen
14:00-14:30	骨盆腔腫瘤在孕期中的處置 Management of pelvic tumor in pregnancy	顏志峰教授 Chih-Feng Yen
14:30-15:00	癌症患者的生育能力保存 Fertility preservation for cancer patients	何積泓醫師 Chi-Hong Ho
15:00-15:30	***Coffee Break***	
	座長：吳華席 主任 (Hua-Hsi Wu) **葉長青 主任 (Chang-Ching Yeh)**	
15:30-16:00	乳癌與懷孕 Breast cancer and Pregnancy	賴峻毅醫師 Jiun-I Lai
16:00-16:30	孕期血液癌症的診斷與治療 Diagnosis and management of hematologic cancers in pregnancy	蔡淳光醫師 Chun-Kuang Tsai
16:30-17:00	癌病病人的孕期照顧 Pregnancy care in cancer patients	曾仁宇醫師 Jen-Yu Tseng

Management of CIN lesions and cervical cancer in pregnancy

子宮頸癌前病變與子宮頸癌在孕期中的處置

Jen-Ruei Chen

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The management of cervical intra-epithelial neoplasia (CIN) and cervical cancer (Cx Ca) during pregnancy presents unique clinical challenges, balancing maternal health with fetal safety.

This lecture provides an evidence-based overview of diagnostic approaches, risk stratification, and treatment strategies for CIN and invasive Cx Ca identified during pregnancy. Emphasis is placed on the timing and modality of interventions, including colposcopic assessment, biopsy, and the role of conservative management versus immediate treatment. Special considerations such as gestational age, tumor stage, and maternal-fetal outcomes are discussed to guide individualized care plans. We also explore the psychological and ethical aspects of managing malignancy in the context of pregnancy.

This lecture integrates current clinical guidelines, including those from the ESGO, ESMO, and ASCCP, as well as recent literature on maternal-fetal outcomes and long-term prognosis. Attendees will be provided with algorithms for decision-making across various clinical scenarios and gestational stages, along with practical recommendations for counseling, surveillance, and post-delivery follow-up.

Management of pelvic tumor in pregnancy

骨盆腔腫瘤在孕期中的處置

Chih-Feng Yen

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Adnexal masses are identified in approximately 2 to 20 per 1,000 pregnancies, with most being benign and resolving spontaneously by the second trimester. The most frequent adnexal masses necessitating surgery include dermoid cysts (32%) and endometriomas (15%), among others. Malignancy is identified in approximately 2% of cases, typically presenting as germ cell tumors or borderline ovarian tumors, which are generally low-grade and diagnosed at an early stage. Epithelial ovarian carcinoma remains exceedingly rare in this population.

Ultrasonography serves as the primary diagnostic modality, and MRI, which provides detailed imaging without ionizing radiation, is used for adjunctive evaluation. Tumor markers, such as CA-125, AFP, LDH, inhibin B, CEA, and β-hCG, are more valuable for monitoring disease progression or response to therapy rather than for initial diagnosis due to their physiological elevations during pregnancy and lack of specificity.

Asymptomatic, benign-appearing masses may be managed expectantly.; while surgical intervention is warranted in cases of symptomatic masses, suspicion of malignancy, or complications such as torsion. A retrospective study conducted at CGMH found that 14.84% of patients with adnexal masses during pregnancy experienced tumor torsion. Masses measuring between 6 and 8 cm were associated with a significantly higher risk of torsion, with 60% of torsion events occurring between the 10th and 17th weeks of gestation, while only 5.9% occurred after 20 weeks. The incidence of malignancy was 3.4%, and ovarian cancer was identified in 2.3% of cases. Tumors with diameters ≥10 cm at initial diagnosis and exhibiting growth rates ≥3.5 cm/week demonstrated a significantly higher risk of malignancy.

Laparoscopy is generally preferred over laparotomy due to its association with shorter hospital stays, reduced postoperative pain, and lower rates of spontaneous abortion and preterm delivery. Best practices for laparoscopy during pregnancy include scheduling the procedure during the early 2nd trimester, careful port placement, maintaining pneumoperitoneum < 12 to 15 mm Hg, intraoperative maternal capnography, and FHR and contraction monitoring. Appropriate mechanical and chemical thromboprophylaxis should also be employed.

Although rarely necessary, chemotherapy may be administered during the 2nd and 3rd trimesters, after organogenesis, in cases of advanced-stage ovarian cancer in which the risk of maternal mortality outweighs the fetal consequences.

Fertility preservation for cancer patients

癌症患者的生育能力保存

Chi-Hong Ho

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Advancements in cancer therapies have achieved much improvement in survival rate of cancer patients. The cancer treatments, such as surgery, chemotherapy, and radiotherapy, potentially damage ovarian function. For young patients who desire future pregnancy, it is necessary to preserve the reproductive organs and their function to prevent loss of fertility. The methods of female fertility preservation include oocyte/embryo cryopreservation, ovarian tissue cryopreservation, ovarian transposition, and fertility-sparing surgery.

To cryopreserve oocytes or embryos, patients should receive appropriate controlled ovarian stimulation (COS). Most patients have only a single cycle owing to time constraints before oncologic treatment. The COS protocol and gonadotropin dose for oocyte cryopreservation in cancer patients requires an individualized assessment to obtain sufficient good quality oocytes with safety, especially minimizing the risk of ovarian hyperstimulation syndrome (OHSS). Random-start ovarian stimulation reduces time constraints without compromising oocyte yield and maturity. For estrogen-sensitive cancer, letrozole can be used during ovarian stimulation.

Ovarian tissue cryopreservation (OTC) is an important development for fertility preservation in girls and young women at risk of premature ovarian insufficiency because of treatment for cancer. OTC involves the removal and freezing of ovarian tissue containing primordial follicles, which can later be thawed and re-implanted or uses for in vitro maturation. OTC allows for the preservation of hormonal function, which may contribute to better reproductive outcomes and overall quality of life post-treatment. However, the risk of reintroducing malignant cells in cancer patients and the long-term safety of re-implantation require more research.

Pelvic irradiation almost induces castration and long-term hormone therapy would then be indicated for young women. Ovarian transposition has been proposed to preserve ovarian function in premenopausal patients receiving radiation therapy. For most gynecological cancers, the standard treatment must have reproductive organs removed. The fertility-sparing surgeries to treat early-stage cervical cancer, endometrial cancer and ovarian cancer should be considered for young patients who desire future pregnancy.

Breast cancer and pregnancy

乳癌與懷孕

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Breast cancer in reproductive-aged individuals presents unique challenges, particularly regarding pregnancy planning and fertility preservation. This talk will explore the intersection of breast cancer treatment and pregnancy, focusing on chemotherapy-related pregnancy risks, the role of gonadotropin-releasing hormone (GnRH) agonists in fertility preservation, and the long-term pregnancy risks associated with endocrine therapy. Chemotherapy is a cornerstone of breast cancer treatment but carries potential reproductive risks, including ovarian toxicity and impaired fertility. The impact of chemotherapy on ovarian reserve and pregnancy outcomes will be discussed, emphasizing the importance of counseling patients on fertility preservation strategies prior to treatment initiation.GnRH agonists have emerged as a potential option for protecting ovarian function during chemotherapy. While their use is associated with a reduced risk of premature ovarian insufficiency, questions remain regarding their efficacy in preserving long-term fertility and their impact on pregnancy outcomes. This talk will review current evidence on the use of GnRH agonists and their role in reproductive planning.Endocrine therapy, particularly selective estrogen receptor modulators and aromatase inhibitors, plays a critical role in hormone receptor-positive breast cancer management. However, the prolonged duration of endocrine therapy, typically 5 to 10 years, poses challenges for individuals desiring pregnancy. Emerging research on pregnancy safety after endocrine therapy and potential strategies for treatment interruption, such as the POSITIVE trial findings, will be discussed.In this talk, I will discuss the above topics through the prespective of evolving landscape of breast cancer and pregnancy.

Diagnosis and management of hematologic cancers in pregnancy

孕期血液癌症的診斷與治療

Chun-Kuang Tsai

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The diagnosis of hematologic malignancies during pregnancy presents a unique clinical challenge, requiring a careful balance between maternal health and fetal safety. Although rare, hematologic cancers—including leukemia and lymphoma—can occur during gestation, often manifesting with nonspecific symptoms that may be misattributed to pregnancy-related physiological changes. Timely diagnosis is crucial but may be delayed due to concerns over fetal exposure to diagnostic imaging or invasive procedures. Nonetheless, modalities such as ultrasound and magnetic resonance imaging (MRI) without gadolinium are generally considered safe, and necessary hematologic evaluations should not be postponed.

Management strategies depend on the type and stage of the malignancy, gestational age, and the urgency of treatment. In general, treatment decisions require a multidisciplinary approach involving hematologists, obstetricians, neonatologists, and ethicists. Certain chemotherapeutic agents and regimens may be administered safely during the second and third trimesters, while radiotherapy and certain targeted therapies are typically avoided due to teratogenic risk. In select cases, deferring treatment until fetal viability or delivery may be appropriate, while in others, immediate maternal therapy takes precedence.

Outcomes vary widely depending on the malignancy and timing of intervention, but advances in supportive care, chemotherapy protocols, and perinatal medicine have improved the prognosis for both mother and child. This section discusses the diagnostic considerations, and current evidence-based strategies for managing hematologic cancers during pregnancy, with a focus on optimizing outcomes while minimizing harm.

Pregnancy care in cancer patients

癌病病人的孕期照顧

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Maternal fetal medicine specialists face a complex challenge managing the patient and the fetus when cancer is diagnosed during pregnancy. With approximately 1 in 1,000 pregnancies complicated by malignancy, primary care physicians play a pivotal role in early detection, coordination of multidisciplinary care, and ongoing surveillance throughout the pregnancy-cancer continuum. This review outlines evidence-based approaches to screening, diagnosis, and supportive care for this vulnerable population.

Primary care providers must balance routine antenatal care with cancer-specific considerations, including modified surveillance protocols, management of treatment side effects, and addressing psychosocial needs. Critical areas of focus include symptom recognition despite physiologic changes of pregnancy, appropriate timing of diagnostic workups, and coordinating care between oncology, maternal-fetal medicine, and primary care teams. Practical approaches to medication management, nutritional support, and mental health interventions specifically tailored to pregnant cancer patients will be discussed.

Special attention is given to post-treatment follow-up, survivorship care planning, and management of late effects in both mother and child. Emerging evidence suggests that primary care involvement improves both oncologic and obstetric outcomes through timely recognition of complications and facilitation of appropriate interventions. These recommendations can be tailored to enhance primary care capacity in supporting pregnant cancer patients throughout their complex healthcare journey.