

稿件編號：OO1	<p>史蒂芬強生症候群造成陰道狹窄患者的分娩途徑及生殖器併發症治療之個案報告 及文獻整理</p>
<p>臨時稿件編號： 1037</p>	<p>Route of delivery in a patient with vaginal stenosis from Steven-Johnson Syndrome and literature review of the management of genital complications</p> <p><u>蔡孟臻</u>¹ 台北醫學大學附設醫院¹</p>
<p>論文發表方式： 口頭報告</p>	<p>Objective: Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) are severe dermatological conditions, predominantly affecting women with mortality rates of 4.8-48%. Drugs, including antibiotics, are common triggers. They cause painful mucous membrane erosions in various body parts. Treatment involves steroids, creams, and therapy. Some pregnant women with SJS-related vaginal stenosis face challenges of choice of delivery route.</p>
<p>論文歸類： 產科</p>	<p>Case report: A 34-year-old primigravida woman presented at term with vaginal stenosis consequent to a 10-year-history of Steven-Johnson syndrome triggered by the use of Cephalosporin. On pediatric Pederson speculum examination, vaginal stenosis, cervico-vaginal adhesion, stenotic and scarred cervix, telangiectasis of vaginal mucosa and moderate bleeding after examination were noted. The couple was discussed with the increased risks of severe genital tract laceration and excessive bleeding from vaginal birth. Shared clinical decision making was reached to undergo a Cesarean delivery.</p> <p>Conclusion: Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) can result in severe genital complications in women, sometimes requiring cesarean sections due to genital scarring.</p>

稿件編號：OO2	<p style="text-align: center;">剖腹產疤痕妊娠: 案例報告與文獻回顧 Cesarean Scar Pregnancy: A Case Report and a Literature Review</p>
臨時稿件編號： 1119	
論文發表方式： 口頭報告	<p>Cesarean scar pregnancy is a rare form of ectopic pregnancy characterized by the placenta implants on or within the scar tissue from previous cesarean section. This condition may lead to life-threatening complications. Different treatments are available consider to maternal clinical manifestation and the embryonic status. In this case report, we describe a cesarean scar pregnancy underwent conservative treatment with methotrexate first and then received dilatation and curettage. The patient's serum hCG levels decreased and we avoid hysterectomy, thereby preserving her fertility.</p>
論文歸類： 產科	

稿件編號：OO3	胎兒鏡氣管內氣球置入阻塞手術治療嚴重型先天性橫膈膜疝氣
臨時稿件編號： 1090	Fetoscopic endotracheal occlusion as prenatal treatment for congenital diaphragmatic hernia 許文瑋 ¹ 康巧鈺 ² 台大新竹分院婦產部 ¹ 台大醫院婦產部 ²
論文發表方式： 口頭報告	Congenital diaphragmatic hernia (CDH) is a defect in the fetal diaphragm, causing herniation of the abdominal organ into the chest cavity. The prognosis of CDH depends on the location of the defect (left or right), location of the liver (liver up or not), and the severity of the herniation. To assess the severity, measurement of the observed to expected lung to head ratio (O/E LHR) by ultrasound is the most important prognostic factor currently. CDH is classified as mild (O/E LHR >45%), moderate (25% ≤ O/E LHR < 45%), severe (15% ≤ O/E LHR < 25%) and extreme (O/E LHR < 15%).
論文歸類： 產科	<p>Previously, CDH was managed by postnatal operation and supportive care. However, there is still high mortality in the severe group even after standard management. The survival rate could be as low as 11~24% in severe CDH group. Since the 1990s, many studies began to look for the prenatal treatment for CDH. After a series of trials, prenatal fetoscopic endotracheal occlusion (FETO) has been shown to be beneficial for severe CDH patients. A randomized controlled trial (Tracheal Occlusion to Accelerate Lung Growth, TOTAL trial) showed that 40% of infants (16 of 40) in the FETO group survived to discharge, as compared with 15% (6 of 40) in the expectant care group (relative risk, 2.67; 95% confidence interval [CI], 1.22 to 6.11; two-sided P=0.009). Survival to 6 months of age was identical to the survival to discharge (relative risk, 2.67; 95% CI, 1.22 to 6.11). For moderate CDH, there was no significant superiority of the FETO treatment than the expectant care group.</p> <p>As FETO gradually became a promising prenatal treatment for isolated severe left CDH in the world, Taiwan has currently no experience with the treatment. National Taiwan University Hospital is now recruiting candidates for FETO treatment, and hopefully will incorporate FETO into standard management of severe CDH patients in Taiwan. The inclusion criteria includes singleton pregnancy with isolated severe CDH (O/E LHR < 25%) without syndromic genetic disease.</p>

稿件編號：OO4	<p style="text-align: center;">重度血友病孕婦的妊娠相關處置，一個珍貴的臨床案例經驗</p> <p style="text-align: center;">Management of pregnant female with severe Hemophilia A: A precious clinical experience</p>
臨時稿件編號： 1225	
論文發表方式： 口頭報告	<p>何敏慧¹ 蘇國銘¹ 三軍總醫院¹</p>
論文歸類： 產科	<p>Introduction Hemophilia-A is an X-linked recessive inherited bleeding disorder characterized by the deficiency of clotting factor VIII(FVIII) and results in prolonged bleeding after minor injury or surgical intervention. Spontaneous bleeding into joints, deep muscles and internal organs may also occur in severe cases. Hemophilia-A mainly affects males and is rare in females, whose either X chromosomes are affected or just one is affected while the other is inactive. Females who inherit one affected X chromosome are referred to as hemophilia carriers. Female carriers usually have FVIII levels in the lower limit of the normal range. They may also experience bleeding tendencies similar to males with mild hemophilia as well as excessive bleeding due to gynecological problems, such as heavy menstrual bleeding and postpartum hemorrhage. Hence, the impaired hemostasis places women with hemophilia at increased risk of bleeding complications during pregnancy, childbirth and puerperium.</p> <p>Case presentation A 32-year-old woman, primigravida, presented to our obstetric section with an intrauterine pregnancy at eight weeks of gestation. She inherited a heterozygous mutation for the F8 gene but exhibited extremely skewed (100%) X-chromosome inactivation of the wild-type allele and was diagnosed with severe Hemophilia-A(FVIII: C<1%) at 3-year-old. She sustained recurrent bleeding episodes, including ecchymosis, bleeding on the puncture site, and chronic hemophilic arthropathy, so she received replacement therapy with recombinant FVIII since her childhood. In her first trimester, she was confirmed to have a male fetus by ultrasound and therefore received amniocentesis at 17 weeks of gestation for prenatal diagnosis. Unfortunately, the male fetus was also diagnosed as Hemophilia-A with hemizygous nonsense mutation (c.6683G>A).</p> <p>After a thorough explanation and discussion about the risks, she determined to continue the pregnancy. A multidisciplinary team consisting of the hematologist, obstetrician, and pediatrician collaborated to make individualized antenatal care and delivery plans. A shortened cervix (cervical length 1.62cm) with funneling was found during the high-level ultrasound in the second trimester, and she underwent transvaginal cervical cerclage with the modified Shirodkar procedure. She was transfused single-chain recombinant factor VIII (Afstyla) before and after surgery at a daily dose of 3000-4000IU for five consecutive days, as suggested by the hematologist. We checked laboratory examinations throughout the process, including complete blood count, coagulation profile, and FVIII assay to ensure hemostasis. After cerclage, she was requested absolute bed rest with progesterone supplement. We also administered the oral tocolytic agent for her intermittent episodes of preterm uterine contraction. To avoid intracranial hemorrhage of her affected male neonate, she was ordinarily planning to receive the Cesarean section. Nevertheless, she presented with lower abdominal pain with intermittent vaginal bleeding, and irregular preterm uterine contractions were noted on the tocodynamometer. We adjusted the dosage of tocolytic agent with oral nifedipine and intravenous ritodrine to reduce contractions, thereby delaying preterm labor. We administered the antenatal corticosteroid with only a single course of betamethasone for fetal lung maturation and magnesium sulfate for neuroprotection. Labor progressed, and the pelvic examination revealed a dislodged</p>

cerclage band and cervical dilatation was 7cm. We discontinued tocolytic agents, and she delivered a male baby via vaginal delivery without instrumental assistance. Blood loss was estimated to be less than 100ml. In the following five days, she received the continuous injection of recombinant FVIII concentrate. The postpartum course was uneventful, and no excessive bleeding occurred. The cord blood sample revealed the FVIII level <1%, which confirmed the male baby to be severe hemophilia A. After birth, brain sonography was performed several times, and no neonatal intracranial hemorrhage was noted.

Discussion and conclusion

Hemophilia raises concerns about excessive bleeding risk and thus makes the management of women with severe hemophilia challenging. The risk of a male child inheriting hemophilia from carrier women is 50%. Consequently, when dealing with the delivery of a fetus affected by more than mild hemophilia, careful consideration is essential due to the potential for hemorrhagic complications. The best approach for managing the delivery in these cases remains a subject of ongoing discussion and evaluation. The patient presented in this study underwent a vaginal delivery utilizing bolus FVIII concentrate both for prophylaxis and for the management of labor without antepartum or significant postpartum hemorrhage. Obstetric management of women with hemophilia poses a distinctive challenge. Highlighted by the successful handling of a patient with a rare and severe bleeding disorder, effective coordination among multiple disciplines and meticulous planning is crucial. Timely and consistent communication between hematologists and obstetricians is pivotal in securing the best possible outcome for these individuals.

稿件編號：OO5	<p style="text-align: center;">減痛分娩施打時機對產程的影響及產科不良結果之分析</p> <p style="text-align: center;">The timing of epidural analgesia on the effects of labor duration, and maternal, neonatal outcomes.</p>
臨時稿件編號： 1278	
論文發表方式： 口頭報告	<p>Objective: This study aimed to investigate the difference of effect between epidural analgesia administered in latent phase and active phase on labor stages duration and maternal and neonatal outcomes.</p>
論文歸類： 產科	<p>台北榮民總醫院婦女醫學部¹</p> <p>顏廷聿¹</p> <p>Methods: We are conducting a retrospective research base on our data collected at Taipei Veterans General Hospital. The data includes all full-term maternal who underwent epidural analgesia administration. They were grouped into epidural analgesia in latent phase (Cervical dilation < 3cm) and active phase (cervical dilatation ≥3 cm). Primary outcomes were total labor duration of duration of different stages of labor. Secondary outcomes include modes of delivery, postpartum hemorrhage, neonatal Apgar scores, pediatric admission of neonatal.</p> <p>Anticipated result: Data from 2023 January to June will be collected and analyzed. We expected that epidural analgesia administered before a cervical dilation of 3 cm might be associated with longer total, first-, and second- stage labor durations compared with later administration. However, our current clinical practice did not hold considerations on labor duration and epidural analgesia initiation time, we hope this study result could guide clinical decision making. We did not expected difference in delivery outcomes.</p>

稿件編號：OO6	<p>探討足月早期破水的產婦催生失敗之預測因子</p>
臨時稿件編號： 1207	<p>Predictive factors for failed labor induction in term pregnancies with spontaneous prelabor rupture of membranes</p> <p>賴昱蓁¹ 陳治平¹ 王國恭¹ 陳宜雍¹ 王亮凱¹ 鄧肇雄¹ 陳震宇*¹ 台北馬偕紀念醫院婦產部高危險妊娠學科¹</p>
論文發表方式： 口頭報告	<p>Objective: Prelabor rupture of membranes (PROM) at term is a common indication for labor induction. The aim of this study was to investigate predictive factors associated with unsuccessful labor induction in pregnant women experiencing spontaneous PROM.</p>
論文歸類： 產科	<p>Methods: A retrospective cohort study was conducted on singleton pregnant women with spontaneous PROM at a tertiary medical center from October 2019 to March 2023. Multivariate logistic regression analyses were employed to identify independent predictors of failed induction. Receiver operating characteristic curve analyses were used to assess variables distinguishing between successful and failed induction of labor.</p> <p>Results: Among 600 singleton term pregnancies with spontaneous PROM, 35 (5.8%) resulted in failed induction of labor, leading to cesarean delivery. The failed induction group exhibited a higher incidence of nulliparity (94.3% vs. 75.6%, P = 0.011), a lower Bishop score (3.09 ± 2.85 vs. 4.91 ± 2.81, P = 0.001), the presence of a non-reassuring fetal heartbeat (62.9% vs. 39.7%, P = 0.007), an elevated white blood cell (WBC) count (11.32 ± 3.63 vs. 9.64 ± 3.11 K/uL, P = 0.006), a longer latent phase duration (934.09 ± 441.29 vs. 627.24 ± 714.86 minutes, P < 0.001), and a higher birth weight (3148.31 ± 429.05 vs. 2999.01 ± 352.63 g, P = 0.011) compared to the successful induction group. Even after adjusting for individual variables in multivariate logistic regression analysis, significant differences persisted in the lower Bishop score (adjusted odds ratio [OR] 10.92, 95% confidence interval [CI] 3.42-34.84, P < 0.001), the presence of a non-reassuring fetal heartbeat (adjusted OR 2.23, 95% CI 1.04-4.76, P = 0.038), and an elevated WBC count (adjusted OR 1.20, 95% CI 1.09-1.32, P < 0.001). The area under the curve for the combination of these predictors was 0.80 (95% CI 0.71-0.89, P < 0.001).</p> <p>Conclusions: Lower Bishop scores, the presence of a non-reassuring fetal heartbeat, and an elevated WBC count independently predict failed labor induction in term pregnancies with spontaneous PROM. Utilizing these parameters could anticipate 80 percent of induction failures in PROM cases.</p>

稿件編號：007	臍帶脫垂: 案例分享與文獻回顧 Umbilical Cord Prolapse: A Report of Three Cases and Review of Literature
臨時稿件編號： 1008	
論文發表方式： 口頭報告	陳毅敏 ¹ 林書凡 ² 夏立忻 ¹ 應宗和 ¹ 中山醫學大學附設醫院婦產部 ¹ 中山醫學大學附設醫院教學部 ²
論文歸類： 產科	Umbilical cord prolapse remains a rare yet critical obstetric emergency with unpredictable outcomes. Despite its low incidence, the potential for severe consequences necessitates vigilance. We present three cases of umbilical cord prolapse following amniotic membrane rupture during labor, each with distinct decision-to-delivery intervals and newborn outcomes. Our discussion encompasses a review of studies on relevant maneuvers, decision-to-delivery and bradycardia-to-delivery intervals, aiming to enhance future outcomes in similar emergencies.

稿件編號：OO8	<p>雙胞胎懷孕合併慢性高血壓併嚴重子癲前症、羊水栓塞、產後大出血及心臟驟停之搶救成功經驗分享及檢討</p>
<p>臨時稿件編號： 1236</p>	<p>A Case Report and Experience Sharing: A Successful Resuscitation in a Case of Twin Pregnancy Complicated by Severe Superimposed Pre-eclampsia, Amniotic Fluid Embolism, Postpartum Hemorrhage, and Cardiac Arrest</p> <p>何宜軒¹ 何銘¹ 蘇俊維¹ 陳怡燕¹ 楊稚怡¹ 陳致穎¹ 中國醫藥大學附設醫院¹</p>
<p>論文發表方式： 口頭報告</p>	<p>This case is a 36-year-old female with a dichorionic diamniotic twin pregnancy. The diagnosis was chronic hypertension complicated by severe preeclampsia. She underwent a cesarean section at 35 weeks and 5 days of pregnancy. The surgery was smooth with a blood loss of 800 mL.</p>
<p>論文歸類： 產科</p>	<p>During observation in the post-anesthesia care unit, she developed pulmonary edema due to preeclampsia, postpartum hemorrhage due to uterine atony, and hypovolemic shock. Severe hyperkalemia, intractable metabolic acidosis, and disseminated intravascular coagulation (DIC) were also noted. Extensive blood transfusions and fluid resuscitation were administered to correct all abnormalities.</p> <p>The patient's vital signs remained stable and she was conscious clear. However, at the 8th hour of treatment, she developed tachycardia, arrhythmia, and altered consciousness, followed by a rapid decline in oxygen saturation. Immediate endotracheal intubation was initiated, but she experienced cardiac arrest during the procedure. Cardio-Pulmonary-Cerebral Resuscitation was initiated. Acute amniotic fluid embolism or pulmonary embolism was strongly suspected, prompting an immediate referral to the cardiovascular surgery team for VA-ECMO placement. VA-ECMO was successfully established at the 26th minute of resuscitation, and the patient regained cardiopulmonary function at the 34th minute. The presumptive diagnosis included twin pregnancy with severe preeclampsia, amniotic fluid embolism, and postpartum hemorrhage.</p> <p>Subsequently, she was transferred to the ICU for management of acute liver failure, severe hyperkalemia, and acute renal failure. ECMO was removed on the third day post-resuscitation, and she was discharged on the 18th day. Follow-up after one month showed no neurological sequelae.</p> <p>Despite the patient's eventual recovery, the management process highlighted several areas for improvement. This case encapsulates nearly all high-risk factors associated with pregnancy, and prenatal, intrapartum, and postpartum management could be further optimized. Firstly, more proactive preparation and patient education before surgery are essential. Secondly, cases of postpartum hemorrhage should be promptly referred back to obstetrics specialists for management, rather than being primarily managed in the post-anesthesia care unit. Also, comprehensive assessment of blood loss in postpartum hemorrhage is crucial to avoid subsequent management discrepancies. Additionally, in cases of preeclampsia patients presenting with hypovolemic shock, blood pressure assessments might differ from normal pregnant patients. Lastly, early consultation with relevant specialists should be considered for unmanageable internal medical issues.</p>

稿件編號：OO9	<p style="text-align: center;">孕前 BMI 對孕產婦及相關生產結果之影響 Effect of pre-pregnancy BMI on maternal and neonatal outcomes</p>
臨時稿件編號： 1245	<p>王健瑋¹ 陳竑卉² 陳震宇³ 洪芳宇¹ 蔡金翰¹ 翁順隆¹ 王功亮⁴ 賴政延⁵ 新竹馬偕紀念醫院婦產科部¹ 國立台灣大學醫學院護理學系² 馬偕紀念醫院婦產科部³ 台東馬偕紀念醫院婦兒科部婦產科⁴ 國立臺東大學生物醫學碩士學位學程⁵</p>
論文發表方式： 口頭報告	<p>Abstract Background: Over the past decade, more and more women are overweight with a pre-pregnancy body mass index (BMI) of greater than 25. Overweight and obese status are associated with higher risk of maternal and adverse neonatal outcomes. This study aimed to determine the effect of pre-pregnancy BMI on maternal and adverse neonatal outcomes.</p>
論文歸類： 產科	<p>Methods: We retrospectively included 32,703 women with singleton term pregnancy (≥ 36 weeks) aged 18-55 years in four hospitals from 2009 to 2021. Women were categorized into four pre-pregnancy weight groups: underweight (BMI < 18.5 kg/m²) (n=4,991), normal weight (BMI 18.5-24.9 kg/m²) (n=23,339), overweight (BMI 25-29.9 kg/m²) (n=3,354), and obesity (BMI ≥ 30 kg/m²) (n=1,019) groups. Collected information on maternal outcomes included antenatal and delivery characteristics. Neonatal outcomes included infant gestational age, birth number, birth weight, birth height, head size, and birth defects. The Pearson's chi-square test and one-way analysis of variance test were performed to determine significant differences in maternal demographic characteristics, maternal and neonatal outcomes between the weight groups. Multiple logistic regression models were used to evaluate the effect of pre-pregnancy weight status on selected maternal and neonatal outcome variables. Subgroup analysis by status of gestational diabetes (GDM) was also performed.</p> <p>Results: One in eight pregnant women had pre-pregnancy overweight or obesity. Compared to the normal weight group, pregnant women in the overweight or obese groups were more likely to be associated with GDM, hypertensive disorders, Cesarean delivery, induction of labor, but less likely to be associated with spontaneous vaginal delivery. These women were also more likely to give birth to infants with macrosomia, suffered from meconium aspiration, 1-min Apgar score of less than 7, respiratory distress syndrome, and admission to intermediate or intensive care unit, whereas no significant differences were observed in 5-min Apgar score of less than 7 and low birth weight between different weight groups. We also observed that macrosomic neonates were not dependent on GDM but rather on pre-pregnancy BMI.</p> <p>Conclusion: An increased pre-pregnancy maternal BMI was associated with the risk of adverse maternal and neonatal outcomes.</p>

稿件編號：OO10	<p style="text-align: center;">案例分享：重度子癩前症併發血栓性微血管病變</p> <p style="text-align: center;">A case sharing : Severe preeclampsia complicated with thrombotic microangiopathies</p>
臨時稿件編號： 1233	<p>郭閔珊¹ 蔡祥維¹ 黃莊彥² 高雄榮民總醫院婦女醫學部¹ 國防醫學院三軍總醫院澎湖分院婦產科²</p>
論文發表方式： 口頭報告	<p>This is a 26-year-old female patient, G2P2(NSD then C/S this time), EDC is 2023/09/02. She was diagnosed proteinuria since GA 20+, but with relative tolerable blood pressure. In addition, GDM was also found, without control. On 2023/06/28(GA 30+4wks), severe hypertension was noted, and the patient was suggested to visit to medical center, but she refused and lost f/u. On 2023/07/18 (GA 33+3 weeks), vaginal bleeding happened, with mild headache and bilateral flank pain. They visited 澎湖三總, severe preeclampsia, HELLP syndrome and placental abruption were impressed, and fetal distress was found. Emergent C/S was performed with PPH. After C/S, the patient had dyspnea, blood tests showed Hb 10.8- > 5.8, Plt 46000, Cr 4.3, CRP 120.8, AST 1115, ALT 376; intubation (7.5Fr. fix 22cm) was performed due to respiratory failure. Right inguinal double-lumen catheter insertion and CVVH was arranged due to fluid overload (I/O + 5013ml/day), anuria and AKI. With multiple organ failure, the patient was transferred to VGHKS.</p>
論文歸類： 產科	<p>At VGHKS ER, Blood tests revealed elevated liver enzymes, creatinine, cardiac enzymes, severe anemia and thrombocytopenia. Bedside echo showed cardiomegaly. She was admitted to ICU for care. Nephrologist was consult, and thrombotic microangiopathies(TMAs) was diagnosed, without definite cause(suspected pregnancy-associated, postpartum hemorrhage, TTP, atypical HUS, or other causes). Temporary hemodialysis was done TIW, and 1st course of plasma exchange was performed during (07/21-26) due to the suspicion of atypical HUS. Her hemolysis improved after serial plasma exchange and supportive care. ADAMTS-13 activity test showed 80%. Her daily urine output is increasing, however, no improving of SCr. Therefore, renal biopsy was done on 8/24. In addition, possible complement pathogenic variant of MCP mutation was detected by NGS, favored atypical HUS. Then, 1st eculizumab started on 08/31, 2nd to 5th dose of eculiumab performed per week thereafter. Renal function didn't improved followed by temporary hemodialysis, so long-term hemodialysis should be arranged. Finally, the patient was discharged under the diagnosis of pregnancy TMA with pathogenic varian of membrane co-factor protein(MCP), provoked by preeclampsia and PPH, start eculizumab since 2023/08/24, complicated with renal failure, s/p hemodialysis.</p>

稿件編號：OO11	<p style="text-align: center;">懷孕期間登革病毒感染對孕婦和新生兒健康的影響</p> <p style="text-align: center;">The Impact of Dengue Virus Infection During Pregnancy on Maternal and Neonatal Health</p>
臨時稿件編號： 1013	
論文發表方式： 口頭報告	<p>Background: Dengue virus infection, transmitted by mosquitoes, is a global health concern. However, the effects of dengue virus infection during pregnancy remain unclear. Such infections may have adverse consequences on both maternal and fetal health, but there is currently a lack of relevant data.</p>
論文歸類： 產科	<p>Research Objectives: This study aims to compare pregnant women infected with dengue virus during pregnancy to those who are not infected, in terms of maternal and neonatal health outcomes, while assessing potential risk factors.</p> <p>Methodology: We will employ a retrospective case-control study design, collecting data from previous cases of pregnant women with dengue virus infection at Chi Mei Hospital. This data will include clinical information and ultrasound examination results. A corresponding control group of uninfected pregnant women will be selected. Statistical analysis will then be conducted to evaluate risk factors associated with dengue virus infection during pregnancy and its impact on maternal and fetal health.</p> <p>Expected Benefits: Through this research, we anticipate providing valuable clinical insights into the effects of dengue virus infection during pregnancy, thereby improving the care of pregnant women and newborns. Additionally, this study will serve as a foundation for academic discussions on related topics. In regions where dengue virus is prevalent, this research may contribute to enhancing prevention and treatment strategies for this disease.</p> <p>Key Word: Dengue fever, pregnancy, fetal distress, preterm premature rupture of membranes (PPROMs)</p>

稿件編號：OO12	台灣孕產婦相關死亡率趨勢與死因探討：真實或者人為因素 Trend and causes of maternal death in Taiwan: reality or artifact
臨時稿件編號： 1257	古宇倫 ^{1,2} 呂宗學 ^{3,4,5,6,7} 嘉義長庚婦產科 ¹ 成功大學公共衛生研究所 ² NCKU Research Center for Health Data and Department of Public Health ³ College of Medicine ⁴ National Cheng Kung University ⁵ Tainan ⁶ Taiwan ⁷
論文發表方式： 口頭報告	This study used the inpatient diagnosis from Taiwan's National Health Insurance Research Database as reference standard to measure the true number of maternal death, the true maternal mortality ratio, the temporal trend of maternal mortality ratio by standardized mortality ratio (SMR), and the distribution of direct and indirect obstetric death during 2008-2020 in Taiwan. From 2008 to 2020, the number of maternal deaths in the official statistics was 237, and the number of deaths estimated by the reference standard was 305, which was 68 more than the official statistics. The maternal mortality ratio in reference standard has increased from 10.1 per 100,000 live births in 2011 to 17.7 per 100,000 live births in 2019. there was a large discrepancy between the reference standard and the official statistics from 2010 to 2012, with a fairly close match in 2015 and 2016, and then a considerable discrepancy in the following years. The true maternal mortality ratio was statistically significantly higher in 2018-2020 than in 2008-2011, and an upward trend was observed in every age group. Using the age structure of childbirth women in 2008-2011 as a reference for the SMR analysis, the SMR were 1.14 (95% CI 0.90-1.42), 1.13 (95% CI 0.89-1.40) and 1.48 (95% CI 1.19-1.81) in 2012-2014, 2015-2017 and 2018-2020, respectively. 68 maternal death were underreported from the official statistics, including 17 amniotic fluid embolisms, 9 postpartum haemorrhages, 8 pregnancy-associated hypertensive disorders, and 8 peripartum cardiomyopathy. Using a broad definition, this study found that 81 deaths were indirect obstetric death, among them, 25 were cardiovascular diseases, 15 were cerebrovascular diseases, and 11 were respiratory diseases. The increase in the official maternal mortality ratio in Taiwan prior to 2018 was not a real increase in risk, but was mainly due to the implementation of the policy of relief in case of childbirth accidents, which led to a return to the true mortality ratio. However, the maternal mortality ratio exactly increased in Taiwan between 2018 and 2019. The further research is needed to verify the true cause. In the future, more attention should be paid and more strategies should be conducted to those pregnant women with cardiovascular co-morbidities to reduce the incidence of avoidable death.
論文歸類： 產科	

稿件編號：OO13	比較 Dinoprostone vaginal insert(Propess®)有無合併 oxytocin 使用對於足月產婦的 催生效果
臨時稿件編號： 1284	Dinoprostone vaginal insert (Propess®) with and without oxytocin use for induction of labor: comparison of obstetric outcomes 張家甄 ¹ 葉長青 ¹ 台北榮民總醫院婦產部 ¹
論文發表方式： 口頭報告	Objective: This study aimed to compare obstetric outcomes in term pregnancies induced with Dinoprostone vaginal insert (Propess®), both with and without adjunctive oxytocin.
論文歸類： 產科	Methods: In this retrospective cohort study at Taipei Veterans General Hospital, data from September 2021 to April 2022 were analyzed. Eligible participants were term pregnant women who underwent labor induction using Dinoprostone, with or without oxytocin. Exclusion criteria encompassed multiple pregnancies, unclear records of Propess usage, and non-initial Propess induction. The study included 125 women: 86 underwent induction with Propess and oxytocin, while 39 received Propess alone. Results: Baseline characteristics were comparable across the two groups. Notably, the oxytocin cohort experienced longer intervals from induction to full cervical dilation (20.77 ± 9.81 vs. 8.42 ± 4.13 hours, $p < 0.0001$), from induction to birth (23.70 ± 10.39 vs. 9.39 ± 4.34 hours, $p < 0.0001$), and extended durations of Propess use (12.70 ± 6.44 vs. 6.57 ± 4.26 hours, $p < 0.0001$). Fetal outcomes did not differ significantly between the groups. Conclusion: The study highlights a correlation between oxytocin use in Dinoprostone- induced labor and extended labor durations, with no detrimental impact on fetal outcomes. However, the conclusions are limited by the sample size and potential confounding factors, emphasizing the need for further research with larger, more controlled cohorts.

稿件編號：OO14	懷孕婦女極端體重妊娠風險與生產方式考量；醫學中心高危險妊娠照護經驗分享 與文獻回顧
臨時稿件編號： 1214	Consideration of delivery methods and risks of pregnant women with extreme body mass index: A single medical center experience with literature review 謝秉霖 ¹ 賴禹儒 ¹ 蘇國銘 ¹ 林啟康 ¹ 三軍總醫院婦產部 ¹
論文發表方式： 口頭報告	Introduction: The optimal management of delivery methods for pregnant women is a critical aspect of maternal healthcare, especially when faced with extremes in body mass index (BMI). This academic exploration delves into the considerations surrounding delivery methods for pregnant women with extreme high and low BMIs, aiming to provide a comprehensive understanding of the unique challenges and risks associated with these diverse physiological conditions. Maternal obesity is a significant risk factor for gestational hypertensive and diabetic disorders, fetal death, preterm birth, and macrosomia. In Asia, some pregnancy presents extremely low body mass index and also has risks of preterm birth, fetal growth restriction, and other fetal complications. For obstetric physicians facing extreme body mass index, pregnant women usually need more attention and more preparation for when and how to deliver the baby.
論文歸類： 產科	Objectives: A comprehensive literature review was conducted to investigate the effect of extremely high and low maternal body mass index (BMI) on maternal and neonatal morbidity outcomes. We have successfully applied the experience to clinical prenatal care on extraordinarily higher and lower BMI. Material and methods: We utilized PubMed to search with the keywords extreme maternal body mass index, pregnancy consideration, and delivery. We focused on the studies published between 2018 to 2023. Results: An article that enrolled 86 studies published in 2021. We also reviewed a few articles about regional statistics in Asia. We also shared our experiences of prenatal care for extreme BMI of 58 and 16 and the shared model of delivery way. Case one is a 34-year-old female (G1P0, BMI:58) diagnosed with preeclampsia at gestational age of 33 weeks and delivered by cesarean section at 37 weeks and 6 days due to refractory hypertension. While the case two is a 38-year-old female with G1P0 with only 40 kg (BMI:16) in weight and delivered by cesarean section at 36 weeks due to fetal growth restriction and fetal distress. Both cases were referred from the local clinics and then delivered uneventfully. All the two infants had good neonatal outcomes and were discharged without delivery complications. Conclusions: A pregnant woman with a high BMI will have higher risks of gestational diabetes mellitus, pregnancy-induced hypertension, preeclampsia and shoulder dystocia, leading to elevated rates of cesarean section and elective cesarean section. In contrast, a mother with a low BMI will have the risks of preterm birth, fetal growth restrictions, and even intrauterine fetal demise. The extremely high and low maternal body index is associated with high risks of prenatal maternal and fetal complications, so we have to pay more attention to the antepartum monitor. In principle, the delivery methods are based on obstetric conditions. Delivering the baby without complications is the concern of all obstetric physicians worldwide.

稿件編號：OO15	比較一劑與兩劑產前預防性抗生素對防止新生兒乙型鏈球菌早發型疾病效果的分析
臨時稿件編號： 1279	<p>Comparing the Effectiveness of One versus Two Dosages of Intrapartum Prophylactic Antibiotics in Preventing Neonatal Group B Streptococcal Early-Onset Disease: A Comprehensive Analysis.</p> <p>陳薇文¹ 楊稚怡¹ 何銘¹ 中國醫藥大學附設醫院¹</p>
論文發表方式： 口頭報告	<p>Introduction: Approximately 10-30% of women have the risk of Group B streptococcal (GBS) infection in their vaginal and rectal areas, making it one of the most common causes of neonatal early-onset disease. Therefore, intrapartum prophylactic antibiotic administration is the most effective way to prevent perinatal GBS early-onset disease. In clinical practice, a single dose of 2 gm intravenous ampicillin is recommended for GBS-positive women with a singleton pregnancy lasting 37 weeks or longer, followed by 1g every 4 hours until delivery. The purpose of this study is to compare the risk between the dosage of intrapartum prophylactic antibiotics given and the occurrence of neonatal early-onset disease.</p>
論文歸類： 產科	<p>Methods: This study was conducted among term delivery pregnant women in a medical center from January 2014 to December 2018. Neonatal GBS early-onset disease includes the occurrence of fever, respiratory distress, meningitis, and sepsis in the first week of life of the newborn. Multivariate logistic regression was applied to explore the association between the application of intrapartum prophylactic antibiotics and EOD incidence.</p> <p>Results: A total of 1745 pregnant women with term delivery were included in this study, and the incidence rate of neonatal GBS early-onset disease (EOD) is 30.36% in the absence of intrapartum antibiotic prophylaxis group, 16.5% in patients given one dose of prophylactic antibiotics, and 14.44% in patients who completed two doses of prophylactic antibiotics. Multivariate logistic regression analysis revealed that pregnant women who were given one dose (OR: 0.46, 95% CI: 0.24-0.88, p=0.018) and completed two doses (OR: 0.39, 95% CI: 0.22-0.71, p=0.001) of prophylactic antibiotics had a lower rate of neonatal GBS EOD compared with those without intrapartum prophylactic antibiotics.</p> <p>Conclusion: In our study, compared to those not given any intrapartum prophylactic antibiotics, women given at least one dose of antibiotics showed an obvious decrease in the incidence of neonatal GBS early-onset disease.</p>

稿件編號：OO16	Anti M 抗體造成胎兒子宮內死亡：中國醫藥大學附設醫院近 10 年的案例分析
臨時稿件編號： 1057	Anti-M antibodies as a cause of intrauterine fetal death: A case series over past 10 years at China Medical University Hospital 楊稚怡 ¹ 王英哲 ² 薛博仁 ² 何銘 ¹ 中國附醫婦產部 ¹ 中國附醫臨床病理科 ²
論文發表方式： 口頭報告	Background: Hemolytic disease of the fetus and newborn (HDFN) is caused by maternal alloantibodies that actively cross the placenta during gestation and destroy fetal erythroid cells. As a result, fetal anemia, hydrops fetalis and intrauterine fetal death may occur. Anti-M antibodies is one of the most common non RHD antibodies in the pathogenesis of HDFN, previously report low risk leads to severe hemolysis. We present several life-threatening cases due to anti-M alloimmunization and review the general guidelines and management of anti-M antibody during pregnancy through the context of a case series.
論文歸類： 產科	Materials and Methods: We report a 37-year-old women, G3P3 with anti-M antibodies who had experienced two times of IUFD at GA30 weeks and GA35 weeks. This led us to statistically analyze the status of all pregnant women identified with irregular antibodies, including anti-M antibodies, at CMUH over the past decade. Results: Irregular antibody screening tests had been applied to 280 pregnant women in ten years, from which 43 results were positive. There were 6 cases of intrauterine fetal death (13%). The identified antibodies were primarily anti-E (37%), followed by anti-Mia (23%). Among those 43 positive patients, 8 cases were positive for anti-M antibodies (18%). There was a total of 17 gravidity, with 6 miscarriages (35%), and 4 cases occurring in the third trimester (66%). Of the 11 live births, 6 cases of premature birth, including a set of twins. Conclusions: Anti-M antibodies indeed pose a high risk of miscarriage in pregnant women. If the women with history of recurrent miscarriage even IUFD. Anti-M antibodies need to be taken into account. Keywords: MNS blood group system; Anti-M; Hemolytic disease of the fetus and newborn

稿件編號：OO17	<p style="text-align: center;">以第三代長讀長定序確認台灣罕見之乙型地中海貧血帶因位點 Defining the breakpoints of rare HBB gene deletion in a Taiwanese thalassemia trait family by long-read sequencing: A case report</p> <p style="text-align: center;">廖敏君¹ 吳琬如^{1,2} 馬國欽³ 李東杰³ 張舜評³ 陳明^{1,3,2} 彰化基督教醫院婦產部¹ 國立中興大學學士後醫學系² 彰化基督教醫院基因醫學部³</p>
臨時稿件編號： 1198	
論文發表方式： 口頭報告	<p>Introduction</p> <p>Thalassemia is the most common autosomal recessive disorder in Taiwan and has become an essential item of prenatal/preconception screening tests for decades. Alpha-thalassemia, beta-thalassemia, and HPFH (Hereditary Persistence of Fetal Hemoglobin) are all relevant disorders associated with aberrations in the genes responsible for hemoglobin synthesis. Alpha-thalassemia is characterized by specific genetic abnormalities that primarily involve the alpha-globin genes, namely HBA1 and HBA2. The most prevalent genetic abnormality is the deletion of one or more alpha-globin genes. This deletion can involve partial or complete loss of genetic material from either one or both copies of chromosome 16. Beta-thalassemia is a hemoglobin disorder characterized by specific genetic abnormalities primarily associated with the HBB gene, located on human chromosome 11. The most common genetic abnormality involves point mutations in the HBB gene. Besides, HPFH is a rare hemoglobin disorder in beta-thalassemia patients. The main features of HPFH genetic abnormalities include enhanced γ-Globin gene expression and sustained activity of the β-globin gene. Different individuals may have various HPFH gene mutations, including point mutations, gene rearrangements, and amplifications. These abnormalities may affect the regulation of γ-globin genes. Even with the advancement of diagnostic facilities, it is not uncommon to underdiagnose beta-thalassemia traits since the underlying genetic cause and geno-phenotype correlations are complex. Herein, we presented a rare beta-thalassemia trait coupled with one HPFH baby, who got the final genetic diagnosis by long-read sequencing.</p>
論文歸類： 產科	<p>Material and Method</p> <p>This patient is presented with clinical, complete blood cell count and Hb electrophoresis, chromosomal microarray analysis, gap-polymerase chain reaction, and long-read sequencing.</p> <p>Case Report</p> <p>The 36-year-old pregnant woman, G2P1, who was referred to our outpatient clinic for further genetic evaluation because both she and her husband have been identified as β-thalassemia carriers. Based on the present hematology test results, this patient and her husband had low MCV and MCH values. The patient had an elevated Hb A2 level (5.2%), while her husband had elevated levels of Hb A2 (4.5%) and Hb F (19.2%), as determined by hemoglobin electrophoresis. Both of them were suspected to be β-thalassemia carriers. The HBB mutation screening using gap-polymerase chain reaction (gap-PCR) for the couple revealed that the wife had a heterozygous c.126_129delCTTT (p.Phe42fs19*) mutation, while the husband was found to be normal. However, the amniotic fluid array CGH result showed a 1.6 Kb deletion on chromosome 11p15.4(arr[h19] 11p15.4(5246688_5248320)X1), which includes the HBB gene associated with β-thalassemia. The segregation analysis revealed the structural variant was paternal origin. AF demonstrated the fetus is a case of thalassemia major and actually compound HBB heterozygous mutations for c.126_129delCTTT(p.F42fs19*) and 11p15.4 deletion. The further analysis of the genotyping of their first child, an 8-year-old healthy boy, showed the same compound</p>

genotyping (e.g.: .126_129delCTTT(p.F42fs19*) and 11p15.4 deletion) with high HbF(>87.8%) level, suggestive of HPFH. After non-directive counseling, the couple opted for late trimester termination of pregnancy. Screening tests for common HBB deletions conducted on the husband were not able to enunciate the structural variant of HBB. Finally, we applied long-read sequencing which identified a 27411 bp deletion (Chr11:5201648-5229058) at the HBB gene and defined the breakpoints that were never reported in Taiwanese.

Conclusion

In our case, third-generation sequencing (TGS) is an advanced technology that can detect unknown and large structural variants. This aids in addressing challenges related to the assembly of complex genomes and detecting repetitive sequences. Long reads contribute to a more comprehensive understanding of genomic structure and function.

稿件編號：OO18	<p>內髂動脈結紮對懷孕的影響:以全國生產人數為對象之研究</p>
臨時稿件編號： 1087	<p>The impact of internal iliac artery occlusion on pregnancy outcomes: a population-based study from 2008-2017</p> <p>古宇倫¹ 蘇杏如¹ 歐育哲^{1,2} 嘉義長庚紀念醫院婦產科¹ 高雄長庚紀念醫院婦產部²</p>
論文發表方式： 口頭報告	<p>Title: The impact of internal iliac artery occlusion on pregnancy outcomes: a population-based study from 2008-2017</p>
論文歸類： 產科	<p>Objective: Uterine blood flow may decrease after internal iliac artery occlusion, and this decrease may affect pregnancy outcomes.</p> <p>Methods: This case-control study used data from the Birth Certificate Application of Taiwan and linked to the National Health Insurance Research Database and Taiwan Maternal and Child Health Database from 2008-2017. Women who underwent internal iliac artery occlusion before pregnant were identified according to diagnosis and procedure codes. The occlusion group included 328 births in 286 women with a history of internal iliac artery occlusion, and the non-occlusion control group included 2,024,882 births in 1,391,288 women.</p> <p>Results: There were no significant differences in gestational hypertension-associated diseases including preeclampsia, eclampsia and HELLP syndrome between the occlusion and non-occlusion groups (4.3% vs 3.4%, p=0.4). The adjusted odds ratios (ORs) of placental previa and placenta accreta spectrum were 1.69 (95% confidence interval [CI]=1.12-2.56) and 3.99 (95% CI=2.52-6.31), respectively, with the non-occlusion group as reference. The adjusted ORs of preterm delivery in the occlusion group were 1.48 (95% CI=1.08-2.04) and 2.79 (95% CI=1.62-4.82) for a gestational age below 37 weeks and 32 weeks, respectively.</p> <p>Conclusion: Women who underwent internal iliac artery occlusion did not have a higher risk of gestational hypertension and related disease. Their offspring also had similar risks of small for gestational age, poor Apgar score, birth defects and neonatal mortality within 28 days. However, their risks of placental previa, placenta accreta spectrum and preterm delivery were increased.</p> <p>Keywords: internal iliac artery occlusion, gestational hypertension, small for gestational age, placenta previa, placenta accreta spectrum, preterm delivery</p>

稿件編號：OO19	<p style="text-align: center;">研究 TENS 減緩產痛於 fMRI 腦部連接影像之變化 Functional Human Brain Connectivity During Labor and its Alteration under Transcutaneous Electrical Nerve Stimulation</p> <p style="text-align: center;">趙安祥¹ 陳冠儒¹ 王俊杰² 新北市立土城醫院¹ 長庚大學²</p>
臨時稿件編號： 1027	
論文發表方式： 口頭報告	<p>Background The experience of labor pain is a multifaceted phenomenon, shaped by a myriad of physiological processes and cognitive activities. The use of transcutaneous electrical nerve stimulation (TENS) could present a non-invasive alternative for alleviating pain.</p>
論文歸類： 產科	<p>Objectives The aim of this study was to explore the neuronal underpinnings of TENS as a relieving strategy for labor pain by focusing on changes in brain functional connectivity (FC).</p> <p>Study Design A total of 22 parturients were enrolled and divided into two groups: the TENS group, consisting of 15 women with a mean age of 29.0 ± 5.4 years, and the control group, consisting of seven women with a mean age of 30.0 ± 3.3 years. The TENS group received pain relief using portable units. Functional magnetic resonance imaging was performed on both groups, and the images obtained were processed to calculate the FC between different brain regions. Statistical analyses were then conducted to compare variables between the two groups and assess any differences in FC.</p> <p>Results The administration of TENS effectively reduced labor pain intensity. Interestingly, women who received TENS displayed higher FC across various brain regions, such as the prefrontal cortex, insula, occipital gyrus, cingulate gyrus, and orbital gyrus, when compared to the control group. Among the parturients who received TENS, the level of pain relief experienced, categorized as either significant or minimal using a numerical rating scale (NRS), was associated with distinct functional connectivities. Notably, there were significant correlations between FC and changes in the NRS scores, highlighting the link between brain connectivity and pain alleviation.</p> <p>Conclusions The application of TENS in parturients was effective in reducing the intensity of labor pain, an effect seemingly mediated by alterations in brain FC. These findings highlight the potential that non-pharmacological interventions hold in providing effective relief from labor pain.</p>

稿件編號：OO20	<p style="text-align: center;">第二孕期超音波篩檢: 以子宮動脈血流阻力預測低體重新生兒 Prediction of small-for-gestational-age neonates at 19-24 weeks' gestation: role of uterine artery Doppler screening</p> <p>廖柔謙¹ 戴怡芸¹ 臺大醫院婦產部¹</p>
臨時稿件編號： 1110	
論文發表方式： 口頭報告	<p>BACKGROUND- Small for gestational age (SGA) neonates are at increased risk for perinatal mortality and morbidity; however, there is also no consensus on the role of second-trimester uterine artery Doppler screening to predict SGA. Fetal growth was known to vary with ethnicity. The clinical feasibility of combined screening model for Chinese pregnancies has not been fully assessed.</p>
論文歸類： 產科	<p>OBJECTIVE- To investigate the value of combined screening by maternal demographics, fetal biometry, and uterine artery pulsatility index values in the prediction of delivery of SGA neonates in Chinese population.</p> <p>STUDY DESIGN- A retrospective cohort study was conducted among patients scanned between 19 and 24 weeks of gestation between 2010 and 2018. The main outcome measure was prediction of delivery of preterm and term SGA neonates defined as a birthweight in the lowest centile groups (<10th centiles [INTERGROWTH-21st standard]). Multivariable logistic regression analysis was performed, and the predictive accuracy was assessed using receiver operating characteristic curve (ROC) analysis.</p> <p>RESULTS- A search of the database identified 7367 singleton pregnancies with available biometric measurements scanned between 19 and 24 weeks of gestation. There were 808 (9.9%) SGA neonates with birth weight <10th percentile and 140 (9%) pregnancies delivered preterm. The ROC for uterine artery pulsatility index (UtA PI) alone were 66.5, 64.2 and 76.4% of SGA, term SGA and preterm SGA, respectively. There was improvement in the prediction by accounting for the gestational age at the time of the uterine artery Doppler assessment, especially in the preterm group. Once the UtA PI greater than 1.68 at 19 to 24 weeks' gestation, the risk of SGA, preeclampsia, antepartum gestational hypertension, spontaneous preterm birth, and stillbirth increased rapidly after this cutoff value.</p> <p>CONCLUSIONS- In this large prospective cohort, second-trimester uterine artery Doppler did not achieve a high performance in detecting SGA, but the potential cutoff values of 1.68 (95th percentile of mean UtA PI) are associated with the increasing risk of the adverse pregnancy outcome.</p>

稿件編號：OO21	<p>缺氧模型下的羊水幹細胞外泌體可表現促血管生成和抗發炎反應能力</p> <p>Hypoxia-induced human amniotic fluid stem cell-derived exosomes show higher potential of pro-angiogenesis and anti-inflammatory ability</p>
臨時稿件編號： 1244	<p>林美君¹ 羅良明¹ 謝燦堂¹ 蕭勝文¹ 台北長庚醫院婦產科¹</p>
論文發表方式： 口頭報告	<p>Introduction: The human amniotic fluid stem cell-derived exosomes (AFSC-exo) had been proved and showed the potential in regenerative medicine especially in healing process. The conditions for culturing and purifying AFSC-exo are still challenging.</p>
論文歸類： 產科	<p>Materials and methods: We cultured the human amniotic fluid stem cell and purified the exosomes using different oxygen conditions, namely normal oxygen (21% O₂, nAFSC-exo) and hypoxia (1% O₂, hAFSC-exo), collected every 6 hours and up to a maximum of 30 hours, and then nAFSC-exo and hAFSC-exo are co-cultured with placental endothelial cells under normal oxygen and hypoxia to observe cell proliferation.</p> <p>Results: All AFSC-exo from both groups were positive for CD9, CD63 and TSG 101 in flowcytometry and Western blot. The morphology studies showed the evidence in nanoparticle tracking analysis and transmission electron microscope. Under the hypoxic conditions, even fewer amniotic fluid stem cells could generate more hAFSC-exo rich protein compared to normal oxygen condition. The multiple immunoassays for hAFSC-exo showed that there are higher concentrations of pro-angiogenesis such as IL-8, PDGF and VEGF; and anti-inflammatory substances including IL-9 and IL-10.</p> <p>Conclusion: The AFSC-exo produced under hypoxia condition has a higher pro-angiogenesis and anti-inflammatory effect, which can be used in regenerative medicine applications and hypertensive disorder in pregnancy.</p>