稿件編號：OO01	妊娠相關高血壓性疾患 Hypertensive disorder in pregnancy
臨時稿件編號： 0208	陳昱豪[1] 黃建霈[1] 台北馬偕紀念醫院婦產部[1]

論文發表方式：
口頭報告

論文歸類：
產科

Background:
Hypertensive disorders in pregnancy including chronic hypertension, gestational hypertension, preeclampsia with/without severe features had affect about up to 6% - 10% of all pregnancies. These disorders usually cause morbidity and mortality for pregnant women and fetus. Even after delivery, there are sequelae associcated with these morbidities.

Methods:
We had collect clinical data from 8160 pregnant women including 7415 term pregnancy and 745 preterm pregnancy since January 1 ,2017 to December 31, 2019, who underwent delivery at Taipei MacKay Memorial Hospital. We had collect data of hypertensive disorders in pregnancy and maternal and fetal outcome, such as C/S, PPH, and SGA, etc. Maternal weight and BMI before pregnancy, before delivery, and during pregnancy were also collected. The obtained data were analyzed with SPSS 24.0 software.

Results:
Of 8160 pregnant women including 7415 term pregnancy and 745 preterm pregnancy, 49 (0.6%) were diagnosed of chronic hypertension, 269 (3.3%) were diagnosed of gestational hypertension, 216 (2.6%) were diagnosed of preeclampsia, and 91(1.1%) were diagnosed of preeclampsia with severe feature. Compared with term pregnancies, the prevalence of hypertensive disorders was higher in preterm pregnancies (15.4 % vs 2.7% , $p <0.01$).

The overall overweight and obesity (BMI>24 Kg/M2) rate were 23.5% before pregnancy and 74.9% before delivery. Higher hypertensive disorder rate were noted in overweight, obesity, higher BMI pregnant women compared with normal and underweight pregnant women. (In chronic hypertension group : 2.1% v.s 0.12%. In gestational hypertension group:6.4 % v.s 1.4%. In preeclampsia group: 6.2% v.s 1.6%, In preeclampsia with severe feature group: 2.8% v.s 0.6%)

The rates of SGA, C/S, PPH, preterm delivery were all higher in pregnant women with hypertensive disorder.

稿件編號：OO02	探討子癇前症於極低體重早產兒長期神經發展預後之影響
臨時稿件編號：0071	Impact of maternal preeclampsia on the long-term neurodevelopmental outcome of very low birth weight preterm infants
	張皓揚 [1] 陳治平 [1] 王國恭 [1] 陳宜雍 [1] 王亮凱 [1] 陳德嫻 [1] 陳震宇 [1] 台北馬偕紀念醫院婦產部 [1]

論文發表方式：
口頭報告

論文歸類：
產科

Objective：
The relationship between maternal preeclampsia and long-term neurodevelopmental outcome of very low birth weight (VLBW) preterm infants remains controversial. The aim of this study was to clarify the influence of maternal preeclampsia on long-term neurologic outcome of VLBW preterm infants until 24 months corrected age using the Bayley Scales of Infant Development, Third Edition (BSID-III).

Material and methods：
A retrospective cohort study of singleton preterm infants with VLBW (birth weight < 1,500 gm) was conducted at Taipei MacKay Memorial Hospital in Taiwan between January 2011 to December 2018. The BSID-III (consisting of three scores of development: cognitive, language, and motor) was used to evaluate the neurologic outcome in 6, 12, and 24 months, and a cutoff value of 85 was defined as neurodevelopmental impairment. Populations were divided into three groups: infants delivered by mother without maternal preeclampsia, maternal preeclampsia without severe features, and maternal preeclampsia with severe features. Chi-square test, ANOVA, ANCOVA and multivariate logistic regression model were used to detect the significant differences between those three groups.

Results：
Overall, 482 infants born to 482 mothers were enrolled in this study, of whom 155 mothers were diagnosed as preeclampsia including 97 maternal preeclampsia with severe features and 58 without severe features. Significant increases of cognitive impairment (odds ratio (OR) 2.30, 95% confidence interval (CI) 1.16-4.59) and language impairment (OR 2.96, 95% CI 1.76-4.96) were noted in the group of maternal preeclampsia with severe features. However, there was no significant difference of maternal preeclampsia with severe features in motor development after logistic regression analysis.

Conclusion：
Maternal preeclampsia with severe features was associated with long-term cognitive and language impairments on VLBW preterm infants at 2 year of age.

稿件編號：OO03	應用射頻燒灼治療同卵雙胞胎：選擇性減胎的台灣經驗
臨時稿件編號：0300	Selective fetal reduction for complicated monochorionic twin by using radiofrequency ablation: The first Taiwan experience

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論文發表方式：
口頭報告

論文歸類：
產科

Worldwide, acardiac twin (Holoacardius or Pseudoacardius) or selective intrauterine growth retardation (sIUGR) in monochorionic (MC) twin are notoriously known among the Obstetricians. It is a medical nightmare for the obstetricians to manage this condition associated with cardiac failure of the pump twin, polyhydramnios, and preterm delivery. We usually treats twin reversed arterial perfusion (TRAP) sequence or sIUGR conservatively. Occasionally, repeated amnio-reduction is preformed to decompress the polyhydramnios caused by the TRAP sequence, even though there was no correction of the pathophysiologic mechanism. Early delivery for sIUGR is common in general practice complicated with high risk of preterm labor and neonatal mortality. Radiofrequency ablation (RFA) is a minimally invasive, percutaneous technique that can effectively obliterate blood supply to an acardiac twin to preserve and protect the pump twin, also can selective feticide for the sIUGR co-twin. . This recent technique has never been used before for the treatment of complicated MC twins in Taiwan. We report the first 5 cases of using prenatal RFA to secure the survival twin. The overall survival rate is 80% with good neonatal wellbeing after delivery.

稿件編號：OO04	第二孕期羊水胎兒蛋白對於胎兒異常之預測
臨時稿件編號：0054	Amniotic fluid Alpha fetoprotein(AF-AFP) and its value for predicting fetal anomaly in mid-trimester of pregnancy

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論文發表方式：
口頭報告

論文歸類：
產科

Objective

To evaluate the value of Amniotic fluid Alpha fetoprotein(AF-AFP) and its value for predicting overall fetal anomaly in mid-trimester of pregnancy.

Methods

A retrospective review on all patients who had amniocentesis performed at Mackay Memorial Hospital (MMH) during 2014/1-2020/6, whose amniotic fluid α-fetoprotein (AF-AFP) test results was conducted to determine the elevatedα-fetoprotein values(>2 MOM)added independent diagnostic information and altered clinical management.

The amniotic fluid α-fetoprotein (AF-AFP) value was categorizedinto 3 groups as "increased"(MOM>2), "normal"(MOM 0.5-2) and "decreased"(MOM<0.5).

"Fetal anomaly" was defined if there was any abnormal findingsfrom following items: karyotype, Array-based Comparative Genomic Hybridization, ultrasonography and the fetal outcomes after birth.

The Ratio of Fetal anomaly in these 3 groups of AFP levels were compared to confirm the utility of amniotic fluid α-fetoprotein measurement as a complementarytest for fetal abnormalities at the time of invasive genetic testing.

Results

55 (0.88%) of 6246amniotic fluid α-fetoprotein values were elevated, 6145(98.38%)were normal and 46(0.74%) was decreased.

The Ratio of Fetal anomaly in these "increased"(MOM>2) groups of AFP level was 50.91%, 3.55%in "normal"(MOM 0.5-2) group, and 8.70% in "decreased"(MOM

Odds ratio(95% CI) of increased"(MOM>2) groups to "normal"(MOM 0.5-2) group was 28.60(16.57-49.37); "decreased"(MOM

Conclusions

Routine measurement of amniotic fluid α-fetoprotein during amniocentesis may have its value for predicting overall fetal anomaly in mid-trimester of pregnancy.

Key words:

amniotic fluid;α-fetoprotein; amniocentesis; fetal anomaly ; mid-trimester of pregnancy

稿件編號：OO05 臨時稿件編號：0034	雙絨毛膜雙胞胎併妊娠糖尿病孕婦之危險因子及母體與周產期不良結果之相關性 Risk factors and adverse maternal and perinatal outcomes for women with dichorionic twin pregnancies complicated by gestational diabetes mellitus: A retrospective cross-sectional study 鄭淨涵 [1] 洪泰和 [1] 謝燦堂 [1] 羅良明 [1] 台北長庚醫院婦產科 [1]
論文發表方式： 口頭報告 論文歸類： 產科	The association between gestational diabetes mellitus (GDM) and adverse maternal and perinatal outcomes in twin pregnancies remains unclear. This study was undertaken to highlight risk factors for GDM in women with dichorionic (DC) twins, and to determine the association between GDM DC twins and adverse maternal and perinatal outcomes in a large homogeneous Taiwanese population. Thus, a retrospective cross-sectional study was carried out on 645 women with DC twins, excluding pregnancies complicated by one or both fetuses with demise (n = 22) or congenital anomalies (n = 9), who gave birth after 28 complete gestational weeks between 1 January 2001 and 31 December 2018. Univariable and multiple logistic regression analyses were carried out. The results showed maternal age >34 years (adjusted odds ratio 2.52; 95% confidence interval 1.25–5.07) and pre-pregnancy body mass index >24.9 kg/m2 (adjusted odds ratio 2.83, 95% confidence interval 1.47–5.46) were independent risk factors for GDM in women with DC twins. Newborns from women with GDM DC twins were more likely to be admitted to the neonatal intensive care unit (adjusted odds ratio 1.70, 95% confidence interval 1.06–2.72) than newborns from women with non-GDM DC twins. Other pregnancy and neonatal outcomes were similar between the two groups. For conclusion, advanced maternal age and pre-pregnancy overweight or obesity are risk factors for GDM in women with DC twins. Except for a nearly twofold increased risk of neonatal intensive care unit admission of newborns, the pregnancy and neonatal outcomes for women with GDM DC twins are similar to those for women with non-GDM DC twins.

稿件編號：OO06	早期破水至生產的時間長段與新生兒預後的關係
	The association between the latency of preterm premature rupture of membranes and the neonatal outcomes
臨時稿件編號：0325	
	陳萱儒[1] 葉長青[1] 臺北榮民總醫院[1]

論文發表方式：口頭報告	Preterm premature rupture of membranes (preterm PROM) contributed to the one third of preterm delivery, which may cause multiple neonatal complications, such as respiratory distress syndrome, neonatal sepsis, and intraventricular hemorrhage……etc. According to the guidelines, gestational age is a primary factor when considering management. Delivery is recommended after 34 weeks of gestation; and expectant management is reasonable between 24 to 34 weeks of gestation. The use of tocolysis is still under debates. Although the use of tocolysis led to the longer latency period, the relationship between prolonged latency and neonatal sepsis was indicated. On the contrary, some studies did not support this relationship.
論文歸類：產科	This is a retrospective, single-institution study, focusing on the women with preterm PROM occurring between 24+0 and 33+6 weeks of gestation. The rate of tocolytic usage was up to 95% in our institution. As our current result, the neonatal sepsis was associated with the shorter latency period and lower 1 min Apgar score. However, no association was found with the possible predictive factors such as maternal CRP level, WBC and fever.
	The association between the longer latency and lower neonatal sepsis rate could be explained by the most stable group of preterm PROM cases, with scarcely infection. Further, the 1 mins Apgar score may be one of the predictive factors for early neonatal sepsis. Under the current preterm PROM care in our institution, the longer latency period did not lead to the higher risks of neonatal sepsis or other neonatal complications.

稿件編號：OO07	不同分娩方式對台灣孕婦產後及新生兒微生組之影響 The Influence of the Different Childbirth Delivery Modes on Postpartum Maternal Microbiome and Neonatal outcomes in Taiwan 翁慈襄 [1] 黃凱堯 [2,3] 楊孝祥 [2] 翁順隆 [4,3,5] 台北馬偕紀念醫院婦產部 [1] 新竹馬偕紀念醫院醫學研究部 [2] 馬偕醫學院醫學系 [3] 新竹馬偕紀念醫院醫學婦產部 [4] 馬偕醫護管理專科學校 [5]
臨時稿件編號： 0242	
論文發表方式： 口頭報告	ABSTRACT
論文歸類： 產科	Background: With the rising number of cases of non-vaginal delivery worldwide, the scientists have been concerned about the influence of the different modes of delivery on the microbiome from pregnancy to postpartum in the gut. In Taiwan, although the trend of birth rate is decreasing rapidly, there are still more than 30 percent of the newborns who were delivered by caesarean section every year. It remains unclear whether the different modes of delivery could have a certain impact on the postpartum maternal microbiome and whether it affect mother-to-newborn microbiome transmission. Result: To address this, we recruited 30 mother-newborn pairs to participate in this study, including 23 pairs of vaginal delivery (VD) and 7 pairs of caesarean section delivery (CSD). The metagenomics analysis was performed across multiple body habitats of mothers during pregnancy to postpartum period. For both of the delivery modes, the species diversity is not varied significantly not only in the maternal gut, but also in the oral cavity and vagina. We have observed that relative abundance of the family Lachnospiraceae (0.059) increased in the oral microbiome and the family Clostridiaceae (0.01) decreased in the gut microbiome between pregnancy and postpartum period. A lower abundance of the family Fusobacteriaceae (0.019) in the maternal vaginal samples was discovered in the VD group than in the CSD group, which may associate with the infant passes through the birth canal. As expected, the meconium microbiome of the VD group is dominated by the bacteria from maternal vagina to gut in newborn, and the CSD group is dominated by the maternal oral or gut strains. More than 35% of genus-level species in the meconium that were shared with at least one body habitat of the respective mother in both birth modes. In particular, newborns who were delivered by cesarean section had a higher proportion of species associated with maternal oral microbiome such as Rothia mucilaginosa and Veillonella dispar. Furthermore, the single-nucleotide polymorphism analysis was performed to explore and describe the possible routes of vertical microbiome transmission. Conclusion: In consequence, our analysis shows that no matter what delivery mode is being used, while only having a slight effect on maternal microbiome in multiple body habitats from pregnancy to postpartum. Nevertheless, the delivery modes still play a crucial role in the initial development of neonatal gut microbiome, potentially impacting on the development of the immune system.

稿件編號：OO08	電子胎兒心音監測之人工智能分析系統
	Concordance analysis of intrapartum cardiotocography between physicians and Artificial Intelligence (AI)-based technique using modified 1D Fully Convolutional Networks (FCN)
臨時稿件編號：0040	

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論文發表方式：口頭報告	Background:

論文歸類：
產科

Background:
Cardiotocography is a common method of electronic fetal monitoring (EFM) for fetal well-being. Data-driven analyses have shown potential for automated EFM assessment. For this preliminary study, we used a novel artificial intelligence method based on fully convolutional networks (FCN), with deep learning for EFM evaluation and correct recognition, and its possible role in evaluation of nonreassuring fetal status.

Methods:
We retrospectively collected 3,239 EFM labor records from 292 deliveries and neonatal Apgar scores between December 2018 and July 2019 at a single medical center. We analyzed these data using an FCN model and compared the results with clinical practice.

Results:
The FCN model recognized EFM traces like physicians, with an average Cohen's kappa coefficient of agreement of 0.525 and average area under the receiver operating characteristic curve of 0.892 for six fetal heart rate (FHR) categories. The FCN model showed higher sensitivity for predicting fetal compromise (0.528 vs 0.132) but a higher false-positive rate (0.632 vs 0.012) compared with clinical practice.

Conclusion:
FCN is a modern technique that may be useful for EFM trace recognition based on its multiconvolutional layered analysis. Our model showed a competitive ability to identify FHR patterns and the potential for evaluation of nonreassuring fetal status.

稿件編號：OO09	實習醫學生接受經陰道生產擬真訓練成效分析 Effectiveness Analysis of Vaginal Delivery Simulation Training during the Clerkship of Medical Training 黃莊彥 [1] 李易良 [1] 簡世豪 [2] 蘇國銘 [1] 張正昌 [1] 江珮綺 [3] 國防醫學院三軍總醫院婦產部 [1] 國防醫學院三軍總醫院教學室 [2] 台北馬偕醫院婦產部 [3]
臨時稿件編號：0057	
論文發表方式： 口頭報告	Purpose: As Taiwan's birthrate declines, people have come to expect sophisticated obstetrics and gynecology treatment. Preparation of medical students for proper childbirth care and vaginal delivery simulation training have become essential to obstetrics teaching. Targets: Fifth- and sixth-year medical students who have not participated in this course. Methods: Using the experimental research method of one-group pretest/post-test design, trainees have to answer six pre-training questions about labor. In the simulation training, CAE LUCINA, the highly realistic childbirth simulator, was used to assist the trainees in labor and delivery training. Lecturers used the TRM technique to remind students of the main points, and the trainees used the ISBAR method to communicate the patient's condition during shift changes with lecturers. Students were also debriefed and post-tested. Results: A total of 164 students participated in the pre-test, and 140 participated in the post-test. When the pre- and post-test answers are compared, higher proportions of right answers were recorded post-test to all questions. Of the 140 students, 121 said that they were very satisfied with the course, and 19 were satisfied. Conclusion: The use of LUCINA in labor and delivery simulation training may have enhanced the ability of students to learn proper vaginal delivery.
論文歸類： 產科	

稿件編號：OO10	甲型地中海貧血：產前諮詢與現況事實 Alpha-thalassemia : prenatal counseling & the facts
臨時稿件編號：0038	簡誌緯 [1] 李汶芳 [2] 趙安祥 [1] 新北土城醫院 [1] 林口長庚記念醫院 [2]
論文發表方式：口頭報告 論文歸類：產科	Introduction:The progress made in the prenatal diagnosis of thalassemia may suggest that prenatal counseling would provide a broad spectrum and step-by-step prenatal counseling. Methods & material: Retrospectively reviewed the genetic counseling records in a center from 2015-2019. Results:25 major alpha-thalssemia fetuses, 6 major beta-thalassemia fetuses and 6 HbH fetuses were identified from 174 pairs of parents. The demographic data of the mothers having major alpha-thalssemia fetuses were as follows: (i) The mean age of the mother was 29.5 year; (ii) 9 were primigravida; (iii) 19 had amnioceentesis, 3 had cord blood sampling and 2 had villi sampling; (iv) the gestation week at termination was between 13-26, had most cases beyond 18 week; (v) all parents were having low MCV & MCH; (vi) all the parents were having SEA thal-gene except for 3 having FIL-gene, one having THAI-gene, one -SEA/- alpha/3.7 gene and one -SEA /-alphaQS gene; (vII) all fetuses were terminated. Conclusion:Although advances in early invasive or non-invasive diagnostic method are available, together with intrauterine blood transfusion, postnatal hematopoietic stem cell transplantation or even in utero stem cell therapy have been successfully completed in some cases, there needs to have early pre-conception or prenatal counselor to address the common but burden issue to the carriers.

稿件編號：OO11	第三孕期鐵質缺乏和缺鐵性貧血的盛行率:單一醫學中心回溯型研究
臨時稿件編號：0195	Prevalence of iron deficiency and iron deficiency anemia in the third-trimester of pregnancy: a retrospective study in a medical center

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論文發表方式：
口頭報告

論文歸類：
產科

Objective: To investigate the prevalence of iron deficiency and iron deficiency anemia among women in the third-trimester of pregnancy.

Material and methods: We conducted a retrospective study from January 2020 to November 2020 in China Medical University Hospital in Taichung, and 606 pregnant women were enrolled in the study. We obtained maternal iron status (serum ferritin, a biomarker of iron deficiency) and hemoglobin at 30~34 weeks' gestation. Pregnant women were classified based on the level of serum ferritin: <15 µg/L, 15 to <30 µg/L, $\geqq$30 µg/L.

Results: 466(76.9%) pregnant women had iron deficiency (serum ferritin <15 µg/L). The number of pregnant women whose serum ferritin showed 15 to <30 µg/L was 106(17.5%). The number of pregnant women whose serum ferritin showed $\geqq$30 µg/L was 34(5.6%). Overall, 126(20.7%), 61(10.1%) and 1(0.2%) women had mild, moderate and severe anemia, respectively. The prevalence of iron deficiency anemia in our study was 27.7%(n=168).

Conclusions: Owing to high prevalence of iron deficiency and iron deficiency anemia in the third-trimester of pregnancy in our study, universal screening for anemia and iron status in third trimester of pregnancy is proposed. The importance of iron supplement should be emphasized for pregnant women with iron deficiency and iron deficiency anemia.

稿件編號：OO12	第一孕期使用含糖飲料行為與妊娠糖尿病發生率之相關性研究
臨時稿件編號：0181	Association of sugar-sweetened beverage use in the first trimester and gestational diabetes mellitus

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論文發表方式：
口頭報告

論文歸類：
產科

=Introduction=
Uncontrolled consumption of sugar-sweetened beverage (SSB) increases risks for many health problems in the general population, but the subject is rarely discussed specifically in pregnant women. We hypothesize an increased craving for SSB and its intake may play a role in developing gestational diabetes mellitus (GDM).

=Material and Methods=
This prospective cohort study recruited 183 pregnant women, who answered questionnaires designed to depict SSB use behaviors. The amount of SSB consumption was reported using product labels or a visual analogue scale for estimation. The desire to drink SSBs was assessed using the modified Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria for substance use disorder, with questions specific for SSB use. All participants received a 75-gram oral glucose tolerance test during 24th–28th weeks of gestation to screen for GDM. Data were collected for statistical analysis.

=Results=
Age, body mass index, SSB intake amount and SSB-related SUD DSM-5 items were significant predictive factors of GDM, with odds ratios of 1.112, 1.208, 0.998 and 1.338, respectively. SUD DSM-5 items were significantly correlated with education level, frequency of eating out, sedentary lifestyle and water intake amount (p=0.046, 0.028, 0.001, 0.033, respectively).

=Conclusion=
Increased craving for SSB early in pregnancy is a risk factor for developing GDM. Increased SSB use significantly correlates with reduced plain water intake, sedentary lifestyle, eating out, snacking, and drinking partners. These serve as educational and interventional targets for women at risk of GDM.

稿件編號：OO13	以微膠囊技術包覆重組人體表皮細胞生長因子之促進表皮癒合及預防疤痕組織生成在剖腹產傷口之研究
臨時稿件編號：0268	Microencapsulated rhEGF to Facilitate Epithelial Healing And Prevent Scar Formation of Cesarean Wound : A Randomized Controlled Trial

黃詩穎 [1] 高川琪 [1] 江其鑫 [1] 林芝卉 [1] 張廷彰 [2] 吳品萱 [1]
基隆長庚醫院婦產部 [1] 林口長庚醫院婦產部 [2]

論文發表方式：
口頭報告

論文歸類：
產科

Objective: Cesarean section (CS) is a major surgical intervention that affects women at childbearing age. Scarring from CS potentially causes discomfort and psychological distress. Emerging evidence indicates that epidermal growth factor (EGF) plays crucial roles in wound healing with the potential of minimizing scar formation. This study aims to investigate the effect of microencapsulated recombinant human EGF (Me-EGF) in scar prevention. Silicone gel was incorporated as part of the routine scar treatment.

Materials and methods: Healthy women scheduled for cesarean delivery were enrolled and randomized to three groups: (1) no scar treatment, (2) silicone gel only, or (3) silicone gel plus Me-EGF. Vancouver Scar Scale (VSS: vascularity, pigmentation, elasticity, and height) was used for scar assessment at the 6 th month and 9 th month after CS.

Results: A total of 60 women were enrolled, but one patient withdrew due to noncompliance with the follow-up visit requirement. Me-EGF-containing treatment group consistently scored the lowest on every parameter in the VSS scale, followed by silicone gel group, and the group with no scar treatment. Kruskal-Wallis tests indicated significant differences ($p < 0.05$) between Me-EGF-containing treatment group and the other two groups in vascularity, pigmentation, elasticity, and the VSS total score, at either 6 th month, 9 th month, or both time points. The only parameter not showing any significant between-group difference was scar height, but the pattern still remained the same, in which Me-EGF group scored better in both month 6 and 9.

Conclusion: Surgical incisions in lower abdomen posed challenge in scar management. Our findings suggest that Me-EGF is a potential therapeutic option for better wound healing and scar prevention.

稿件編號：OO14	妊娠糖尿病患者產後血糖狀態異常之危險因子
	Risk factors for abnormal postpartum glycemic states in women diagnosed with gestational diabetes by the International Association of Diabetes and Pregnancy Study Groups criteria
臨時稿件編號：0140	
	洪泰和 [1,2] 謝燦堂 [1] 蕭勝文 [1] 羅良明 [1] 唐維均 [2] 台北長庚醫院 [1] 基隆長庚醫院 [2]
論文發表方式： 口頭報告	The present study is aimed to evaluate the rate of postpartum glycemic screening tests (PGST) in women with gestational diabetes mellitus (GDM), and to investigate risk factors for abnormal PGST results. We retrospectively analyzed the obstetric data of 1,648 women with GDM who gave birth after 28 completed weeks of gestation between 1 July 2011 and 31 December 2019 at Taipei Chang Gung Memorial Hospital, Taiwan. GDM was diagnosed by the International Association of Diabetes and Pregnancy Study Groups criteria. PGST was carried out at 6–12 weeks postpartum with a 75-g, 2-h oral glucose tolerance test, and the results were classified into normal, prediabetes and diabetes mellitus. Multiple logistic regression was used to assess the associations between various risk factors and abnormal PGST results. The result of this research reveals that 493 (29.9%) women underwent PGST and 162 (32.9%) had abnormal results, including 135 (27.4%) with prediabetes and 27 (5.5%) with diabetes mellitus. Significant risk factors for postpartum diabetes mellitus included insulin therapy during pregnancy (adjusted odds ratio [OR] 10.79, 95% confidence interval [CI] 4.07–28.58), birthweight >4,000 g (adjusted OR 10.22, 95% CI 1.74–59.89) and preterm birth 24.9 kg/m2 (adjusted OR 1.99, 95% CI 1.24–3.21). In conclusion, among our selected patient, less than one-third of women with GDM underwent PGST, and nearly one-third of these women had abnormal results. Future efforts should focus on reducing the barriers to PGST in women with GDM.
論文歸類： 產科	

稿件編號：OO15	懷孕體重控制與妊娠併發症之關聯性
臨時稿件編號：0138	Gestational BW, BMI, weight gain and pregnancy outcomes
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論文發表方式：口頭報告	Background Maternal body mass index (BMI) and gestational weight gain (GWG) are believed to be associated with development of the fetus and maternal complication. We aimed to study the influence of maternal body weight (BW) at pre-pregnancy, birth and GWG on pregnancy outcomes and hope to define optimal pre-pregnancy BMI and GWG among women in Taiwan.
論文歸類：產科	Methods Retrospective study of 7404 term-delivered pregnant women at Mackay Memorial hospital, Taipei, Taiwan, from January 2017 to December 2019 were performed. The interaction between maternal BW and BMI at pre-pregnancy, birth, GWG and pregnancy outcomes were analyzed.

Results

Among the 7404 full-term singleton deliveries, the mean pre-pregnancy BW and BMI are 55.0 kg and 21.2 kg/m2. The mean maternal birth BW and BMI are 67.0 kg and 26.0 kg/m2. The mean body weight gain during pregnancy is 11.8 kg. The rate of postpartum hemorrhage (PPH) is 2.8% (211/7404), the prevalence of chronic hypertension, gestational hypertension, preeclampsia and severe preeclampsia are: 0.4% (29/7404), 0.8% (132/7404), 1.6% (117/7404), and 0.5% (35/7404), respectively. Chronic diabetes mellitus accounts for 0.5% (36/7404) while 6.1% (454/7404) are gestational diabetes mellitus(GDM). Low birth weight neonates and macrosomia were 10.9% (809/7404) and 5.6% (416/7404), respectively. Women with pre-pregnancy BMI above the 90% percentile (BMI=26.8) tend to have higher risk of PPH (11.9% vs 1.8%, OR: 7.2 [95%CI, 5.414-9.579]; p <0.001), gestational hypertension (6.8% vs 1.2%, OR: 5.6 [95%CI, 4.070-8.367]; p <0.001), preeclampsia (4.9% vs 1.2%, OR: 4.169 [95%CI, 2.794-6.221]; p <0.001), severe preeclampsia (1.8% vs 0.3%, OR: 5.415[95%CI, 2.716-10.795]; p <0.001) and GDM (12.5% vs 5.4%, OR: 2.48[95%CI, 1.946-3.161]; p <0.001). These population are also more likely to give birth to large gestational age babies (OR: 3.103[95%CI, 2.441-3.944]; p <0.001). Besides, GWG also affects pregnancy outcomes: women gained more than 17.0 kg (above 90%) during pregnancy have higher risk of PPH (OR: 1.963[95%CI, 1.365-2.823]; p <0.001), preeclampsia (OR: 2.119[95%CI, 1.324-3.390]; p <0.001) and severe preeclampsia (OR: 3.638[95%CI, 1.740-7.604]; p=0.002). However, we also found GWG less than 8.4kg (20%) has higher risk of GDM (10.8% vs 4.9%, OR: 2.337[95%CI, 1.913-2.856]; p <0.001). GWG less than 1.4kg (<1%) is associated with higher PPH risk (7.9% vs 2.8%, OR: 2.978[95%CI, 1.279-6.935]; p =0.021).

Conclusion

Well controlled pre-pregnancy weight (BMI <26.8) and adequate GWG (8.4-17.0 Kg) have the lowest risk of adverse pregnancy outcomes.

稿件編號：OO16 臨時稿件編號： 0316	台灣本土雙胞胎懷孕之母體體重及孕期併發症發生率之相關性：台北馬偕醫院之資料分析 The correlation of complication and maternal weight in twin pregnancy: Data-analysis in Taipei MMH, Taiwan 黃馨瑩 [1] 黃建霈 [1] 台北馬偕紀念醫院婦產科部 [1]
論文發表方式： 口頭報告 論文歸類： 產科	Objective: To assess the range of gestational weight gain in twin pregnancy with lowest pregnancy-related complications. We also calculated the correlation of pre-pregnancy BMI/pre-delivery BMI with pregnancy-related complications. Methods: This single-institution retrospective cohort study includes 351 women with twin pregnancy between January 1st, 2017 and December 31th, 2019. Women's weights and pregnancy-related complications were obtained by medical record chart review. Data analysis was performed by SPSS with statistical analysis, ANOVA, Chi square and binary logistic regression. Main Results: The calculated complication rates in twin pregnancy revealed PPH 7.7%, chronic hypertension 0.9%, gestational hypertension 5.1%, preeclampsia 8%, preeclampsia with severe feature 3.7%, diabetes mallitus(Type 1 and Type 2) 0.6% and gestational diabetes mallitus 9.4%. We compared the complication rate in normal pre-pregnancy BMI/pre-delivery with overweight and obesity group of twin pregnancy women. In pre-pregnancy BMI groups, normal group versus overweight group and normal group versus obese group all revealed no significant difference in rates of PPH, preeclampsia, preeclampsia with severe feature, gestational diabetes mallitus. In pre-delivery BMI groups, normal group versus overweight group and normal group versus obese group revealed significant difference in preeclampsia rate(0.3% vs 6.6%, p=0.001) but no significant difference in other complication rates. Mean gestational weight gain in twin pregnancy was 14.17kg. We defined to get one point for positive of complications(including PPH, preeclampsia, preeclampsia with severe feature, gestational diabetes mallitus) and calculated the sum of complication score. Then we stratified the women with twin pregnancy into 4 groups under same interval of gestational weight gain(Max value-min value/4=7.75kg). The mean score in gestational weight gain group was 0.48(Group1 = <7.75kg), 0.17(Group2 = 7.75-15.5kg), 0.49(Group3 = 15.5-23.25kg,) 0.75(Group4 = >23.25kg). Group 2 compared to group 3 and group 4 revealed significant difference(0.17 vs 0.49, p=0.002;0.17 vs 0.75, p=0.005). Then we stratified group 2 cases into 2, 3, 4 groups by percentage of gestational weight gain and T test/ANOVA test revealed no significant difference between those groups. Conclusions: Higher gestational weight gain in twin pregnancy may increase the risk of pregnancy related complications. In our study, we could conclude that the modest range of gestational weight gain in twin pregnancy was 7.75-15.5kg. We should consider gestational weight gain as an important issue for health care providers.

稿件編號：OO17	自然產後無疤痕子宮破裂引起的產後大出血- 個案系列報告 Unscarred Uterine Rupture with Catastrophic Hemorrhage Immediately After Vaginal Delivery: Report of 6 consecutive cases
臨時稿件編號：0249	廖翌喬 [1] 楊采樺 [1] 林育如 [1] 張育維 [1] 許德耀 [1] 龔福財 [1] 高雄長庚醫院婦產部 [1]

| 論文發表方式：
口頭報告

論文歸類：
產科 | Objective：
To identify risk factors, clinical presentations, in-time diagnostic approaches and management of postpartum unscarred uterine rupture with catastrophic hemorrhage.
Methods：
We retrospectively analyzed postpartum patients who were transferred to our hospital through an established 24-hour emergency transfer system during the period of 3 years from 2018 to 2020. An unscarred uterus was defined as those without a history of invasive procedure involving disruption of uterine myometrium (i.e. cesarean section, or myomectomy). Clinical characteristic, risk factor, materno-fetal outcome, delivery information, image finding and clinical presentation were analyzed.
Results：
Our study comprised 6 cases, diagnosed as unscarred uterine rupture immediately after vaginal delivery. All women were para 2, 4 received vacuum assisted delivery. One presented with out-of-hospital cardiac arrest and acute pulmonary embolism, was resuscitated by extracorporeal membrane oxygenation(ECMO); while 5 women were in hypovolemic shock. Mean hemoglobin and hematocrit value upon arriving was 8.15 (g/dL), and 25.5% respectively. The main finding of bedside ultrasound was engorged low segment of uterus with blood clot accumulation in uterine cavity. Five cases attempted transarterial embolization (TAE) of internal iliac arteries, but 1 failed to complete the procedure due to uncontrollable hemodynamic instability. The major findings of pelvic computer tomography were disrupted myometrium and hemoperitoneum. Postpartum hysterectomy was undertaken for all patients. The mean time of arrival to operative room was 412 minutes (range, 144-598 minutes). Mean amount of estimated total blood loss was 3,350 mL±1,840 mL. (range, 1,600-7,100 ml). All women had obvious laceration over low segment of uterus; of whom with vacuum extraction had more extensive uterine damage. The mean time of intensive care unit stay was 5 days (range, 0-14 days). The length of total hospital stay varied from 9 to 38 days. One had short-term psychotic symptoms related to hypoxic encephalopathy 2 months after the event, and another 5 women were well recovered.
Conclusion.
Instrument assisted obstetric delivery carried a high risk of unscarred uterine rupture. Ultrasound examination couldn't provide substantial diagnostic information. Simple TAE were unable to control hemorrhage due to ruptured uterus. Pre-TAE pelvic computer tomography is recommended to exclude clinically hidden unscarred uterine rupture. Multidisciplinary team-based approaches and in-time exploratory laparotomy contribute to rapid identification, and management of uterine rupture. |

稿件編號：OO18	羊膜囊膨出之緊急子宮頸環紮臨床效益分析
臨時稿件編號：0182	Rescue Cervical Cerclage for Protruding Amniotic Sac: A Retrospective Analysis of Clinical Efficacy
	徐以樂 [1] 葛菁如 [1] 詹德富 [1] 高醫 [1]

More and more practice recommendations encourage rescue cerclage for physically-diagnosed cervical insufficiency in the absence of active infection, bleeding or uterine contractions. However, patients and obstetricians alike still hesitate to perform the procedure for its perceived high failure rate and complications. The current retrospective analysis of single-centered experience collected over 4 years for those with prominently protruding amniotic sacs beyond visibility of cervix, rather than simple dilated cervical os. The objective is to provide additional information about the clinical course of those receiving no rescue cerclage at all, futile rescue cerclage and successful rescue cerclage in difficult cases. It is found that clinical pregnancy outcomes are significantly improved if the procedure was performed successfully, especially if the pregnancy prolonged beyond 3 weeks after cerclage insertion. Outcomes of futile rescue cerclage are similar to those not receiving cerclage at all. In identifying peri-operative factors impacting clinical outcomes, multiparous women and higher leukocytosis at admission are associated with higher risk factors of tocolysis failure. Post-operative bed rest with foley catheter indwelling is helpful in pregnancy prolongation without noticeably higher incidence of thromboembolism. These are meaningful and useful knowledge for patient counselling to make informed decision and treatment outlook.

論文發表方式：
口頭報告

論文歸類：
產科

稿件編號：OO19 臨時稿件編號： 0143	**在偏遠地區醫院五年足月生產的產科經驗** 5-year personal obstetric experience in term pregnancy at a rural hospital <u>詹文宗</u> [1] 臺北榮民總醫院玉里分院婦產科 [1]
論文發表方式： 口頭報告	Objectives :This statistical study is to review personal obstetric experience in term pregnancy at a rural hospital for 5 years
論文歸類： 產科	Methods: From 1st January 2016 to 30th November 2020, all cases of term pregnancy with singleton cephalic presentation were reviewed. Cases of preterm delivery and for elective CS were excluded . Duration of admission-to- delivery , mode of delivery, age , gestational weeks and birth weight were presented and compared between primigravid(P1) and multiparous(P2) women. Discussions: There were 105 primigravid(P1) and 202 multiparous(P2) women. The distribution of gestational weeks and birth weight were not much different in both groups. Duration of admission -to- delivery was much shorter in the multiparous group with 86% delivered less than 8 hours and 68% less than 6 hours. In contrast, 57% delivered less than 8 hours and 39% less than 6 hours in primigravid women. Vaginal delivery rate was 89% in the primigrada and 97% in the multipara. Urgent CS rate was 11% and 3% respectively. Indications of urgent CS included APH in the multipara group, but not in the primigravid group. Conclusions: This review confirms that the primigravida and the multipara are two different biologic entities. The multiparous women had speedy labor course with less instrumental and surgical intervention. However, most of the term pregnancies with singleton cephalic presentation could be delivered within 10 hours (P1：79%，≧p2:95%).