conception groups, the risk of placenta previa (OD: 14.3%, AO: 5.6%, NC: 2.0%, p=0.049), placenta accrete (OD: 28.6%, AO: 8.9%, NC: 1.0%, p≦0.01) were higher. Moreover, compared with spontaneous conception group, the incidence of caesarian section (47.6%), postpartum hemorrhage(over 1,000mL) (61.9%), blood transfusion (19.0%), postpartum hysterectomy (9.5%) were higher in OD group.
Conclusion: Pregnancies by oocyte donation have increased risk of obstetrical complications including placental abnormality.

62.
EFFICACY OF THE DEDICATED NEEDLE FOR UTERINE COMPRESSION SUTURE AND BAKRI BALLOON FOR POSTPARTUM HEMORRHAGE WITH PLACENTA PREVIA

Takeya Hara, Shinya Matsuzaki, Nakagawa Satoshi, Erika Nakatsuka, Tatsuya Miyake, Aiko Kakigano, Kazuya Mimura, Masayuki Endo, Takuji Tomimatsu, Tadashi Kimura. *Osaka University*

Objective: We used a Sengstaken-Blakemore tube, rolled gauze and vertical compression suture (VCS) with an epidural needle for the management of postpartum hemorrhage (PPH) in cases of placenta previa (PP) and low-lying placenta (LLP) before 2014 in our institution. Since 2014, we have been using a dedicated needle for uterine compression suture (UCS) that was developed by our institution and a Bakri balloon for the management of PPH in cases of PP and LLP. This study aimed to evaluate the efficacy of the dedicated needle and Bakri balloon.
Methods: Cases of PP and LLP from January 2008 to March 2019 were retrospectively analyzed and included in the study. However, cases of placenta accrete were excluded. We divided the patients into two groups according to treatment period as follows: period 1 (from January 2008 to December 2013; 64 cases) and Period 2 (from January 2014 to March 2019; 121 cases). Surgical outcomes were then compared between the two groups.
Results: Significant improvements of surgical outcomes were observed in period 2 as compared with period 1 regarding the incidence rate of massive hemorrhage. (>3000 ml; 20.3% [13/64] vs. 7.4% [9/121], $P = 0.02$) and transfusion rate (32.8% [21/64] vs. 9.9% [12/121], $P < 0.001$).
Conclusion: Our study suggests that use of the new straight blunt needle dedicated for VCS and the Bakri balloon significantly improved the surgical outcomes in the cases of PP and LLP in this study.

63.
A CASE OF A TRILOBATE PLACENTA WHICH DETECTED AS A SUCCENTURIATE PLACENTA BY ULTRASONOGRAPHY DURING PREGNANCY

Kei Sagawa [1], Gen Ishikawa [1], Chikako Hasegawa [2], Asako Nagashima [1], Yu Yamaguchi [1], Naofumi Okuda [1], Sayuri Kasano [1], Ai Ikki [1], Akiko Sakata [1], Momoko Owada [1], Noriko Nishikata [1], Kazuho Nakanishi [1], Takashi Yamada [1], Tsutomu Hatori [2], Toshiyuki Takeshita [1]. [1] *Department of Obstetrics and Gynecology, Nippon Medical School;* [2] *Department of Pathology, Nippon Medical School Chiba-Hokusoh Hospital*

Introduction: We were experienced succenturiate placenta by screening ultrasonography at pregnancy checkup. That placenta revealed trilobate after delivery.
Case: Gravida 2 Para 0, 38 years old pregnant patient has come to our facility after intracytoplasmic sperm injection - blastocyst transfer. She has a history of myomectomy 9 months before pregnancy. At the checkup of 21 weeks and 6 days of pregnant age, placentas of separated shape on anterior and posterior wall of uterus were detected by screening ultrasonography. By the ultrasound, it was observed that umbilical cord formed bridge between both lobes, and at the middle of the bridge, main cord was formed and extent to the fetus. At the bridge part, cord seemed it did not have a membranous part and free from supportive tissue by ultrasonography. After intimate pregnancy checkups, at 38 weeks and 2 days of pregnant age, elective cesarean section was performed. Neonate was 2560g male and Apgar score was 8/9 at 1 minute and 5 minutes after birth respectively. The umbilical arterial pH was 7.295. The placenta and cord were delivered without tearing or visible damage. The weight was 617gms and 25 X 16 cm. The shape of placenta revealed trilobite and the cord insertion manners showed marginal or velamentous according to lobes. The dimensions of lobes were 16 X 10 cm, 11 X 10cm, 6.5 X 4.5cm. The bridging part supported with membranous formation and there was no freely part of cord there. As histopathological findings, there were subchorionic fibrin deposit and calcification but no pathological damage on whole lobe like mass infarction or necrosis fortunately.
Discussion and conclusions: By some reports and papers, the frequency of succenturiate placenta is 0.16 to 1% and significantly higher observed in pregnancy after assisted reproductive technology. And it is regarded that the frequency of non-reassuring fetal status is significantly high. In some case, malformed placenta might influence to the prognosis of pregnancy and delivery, thus ultrasound screening on not only fetus and amniotic cavity but placenta and cord could be important.

64.
GESTATIONAL DIABETES(GDM) AS GREAT OBSTETRICAL SYNDROME(GOS)

Masayoshi Arizawa. *Tokyo Metropolitan Ohtsuka Hospital*

Object: We can refer to Gestational diabetes (GDM) as Great Obstetrical Syndrome (GOS) because GDM appears just during pregnancy but can develop into Diabetes Mellitus (DM) later in life. Likewise, babies delivered from mothers with GDM have health risks both soon after delivery and in later life.
There are three reasons why GDM can be considered GOS

1 - In Japan after HAPO study, diagnosis of GDM became more accurate. Before the HAPO study around 1 to 3% of all pregnancies showed GDM, but after the study, this rose to around 10 to 15%.
2 - The number of women with GDM who go on to develop problems later in life is high, which is why we need to be aware of this at the time of pregnancy. Pregnancy can be considered a stress-test for later life.
3 - A high rate of babies born to mothers with GDM develops RDS, hyperglycemia, hyperbilirubinemia, and so on. Later in life they may develop Cardio Vascular Disease (CVD) and DM.

In this study I confirm these three points through placental pathology.
Method: I studied 239 cases of GDM, diagnosed by 75g of OGTT, over a period of 6 years.
In each of the 239 cases, I checked the clinical record and examined the placenta.
GDM is defined by even one-point positive in three glucose level checks, with the base being 92 at 0 minutes and then, after oral glucose,180 at 60 minutes, and 153 at 120 minutes.
Results: From the 239 cases, by microscopic examination, I diagnosed
57 cases of thrombosis in decidua -23.8% Maternal side
40 cases of villous vessels abnormality -16.7% Baby's side
Conclusions: In the past we did not have the opportunity to examine a large number of GDM placentas, but with this study I examined 250 placentas over a six-year period, demonstrating an increase in awareness of the importance of placental pathology in GDM. This shows a change in thinking among obstetricians.
Secondly, in this study I showed through placental pathology, that mother's vessels problems during pregnancy can continue to have an impact on cardiovascular disease later in life.
Thirdly, this study showed that vascular problems in the mother can also continue to have an effect in later life on cardiovascular disease in the baby.
Placental pathology is basically for the mother and baby, but it is also a vital tool not only for obstetricians, but also for internal medicine and pediatrics. That is why GDM can be referred to as GOS.

65.
PLACENTAL FINDINGS AS CAUSE OF NEONATAL DEATHS

Masayoshi Arizawa. *Tokyo Metropolitan Ohtsuka Hospital*

Object: The most well-known causes of death in neonate are prematurity, immaturity, low birth weight, infection and abnormalities. In this paper I studied the causes of death, until 28 days of birth, in a neonatal department. In each case, I checked the clinical record and carried out placental pathology. The cases studied in this paper were in the neonatal department, meaning that I had access to full records and materials.
Materials: I checked 37 neonatal death cases in a neonatal unit clinically and with placental pathology examination.
Results: The deaths occurred between 0-days and 28-days. Deliveries were between 22 gestational weeks and 40 gestational weeks, with the average being 28 weeks.
The causes of death according to the clinical records were
abnormalities - 9 cases
placental dysfunction and immaturity - 22 cases
severe infection—6 cases
The causes of death according to placental pathology were
Dysmature villi - 11 cases
Maternal floor vessels abnormality - 12 cases
Chorioamnionitis or deciduitis —10cases
Conclusions: In this study I confirmed the clinical findings that the deaths of neonatal had three main causes; the first was immaturity and fatal shock at delivery, the second was abnormality, and the third was infection. Immaturity and fatal shock means that the baby could not develop. Abnormality meant that there were problems with the heart, lungs, liver, and other organs. Infection complicate with, before and after birth.
What this study found through placental pathology was dysmature villi, immature villi and vessels abnormalities. These pathological pictures prove the clinical findings, because abnormal villi is mainly associated with fatal abnormality, and maternal floor vessels abnormality associated with hypoxia of baby which leads to fatal and neonatal distress.

66.
HOW EXAMINATION OF THE PLACENTA IN PREGNANCY LOSS CAN HELP WITH FUTURE OUTCOMES

Masayoshi Arizawa [1], Tomio Fujita [2]. [1] *Tokyo Metropolitan Ohtsuka Hospital;* [2] *Fujita Clinic*

Object: Pregnancy loss is a big issue for everyone involved. If pregnancy loss occurs repeatedly, we call it recurrent pregnancy loss and in Japan, it is treated at a special clinic. At that time records from previous placental pathology is a necessity for identifying the possible causes and, if the pathology is the same, possible treatments.
Using placental pathology is the initial key to understanding the situation and the next steps to take. After placental pathology examination we can check previous data and add results from the new examination. The role of the pathologist is sometimes underestimated, but the findings of the pathologist can be very important, and the ability to explain the causes of pregnancy loss to the clinician and family is vital.
In this paper we show the causes of pregnancy loss classified by placental pathology.
Material

1 We examined 56 placentas from cases of pregnancy loss in 12 to 21 gestational weeks in a general hospital. We later re-checked and classified these initial examinations, adding more details.
2 We examined 20 placentas from cases of pregnancy loss in 12 to 21 gestational weeks in a specialist clinic. As well as the usual placental pathology, this included a number of other specialist examinations.

Results: Out of 56 cases, we found
maternal floor vessels abnormality - 12 cases
CAM and deciduitis - 14 cases
Dysmature villi - 15 cases
Cord problems - 7 cases
Hemorrhage of decidua - 6 cases
Breus' mole - 1 case
From these 56 cases, several were recurrent.
In the special clinic all cases were recurrent and had special examinations, such as ureaplasma culture, microarray for bacterial detection, and coagulation examination.
Conclusions: Finding the cause of recurrent pregnancy loss is very important, and contributing to successful pregnancy and safe, healthy birth is our ultimate aim. For this reason, considering the vital part that placental pathology can play, we suggest that all hospitals examine the placenta from cases of pregnancy loss in more detail.

67.
MATERNAL VASCULAR MALPERFUSION(MVM) AS A CAUSE OF CHRONIC LUNG DISEASE (CLD)

Masayoshi Arizawa. *Tokyo Metropolitan Ohtsuka Hospital*

Object: The most well known cause of chronic lung disease (CLD) is Subacute necrotizing Chorioamnionitis(SNC). There are a great number of reports and papers that show how SNC leads to Cytokine release syndrome (CRS) and damage to the lungs in newborns. However, clinically, we see many cases of CLD without Chorioamnionitis (CAM) in very low birth weight babies (VLBW). In this paper, I will confirm the causes of CLD in VLBW. I will also confirm the rate of CAM and maternal vascular malperfusion (MVM).
Material: From an examination of the clinical records I chose 190 CLD cases, and examined the placentas in each one by microscope. My diagnosis of CAM or MVM was by the Amsterdam classification, 2014. SNC was diagnosed by necrosis of amnion with white blood cells invasion. CLD was defined by the newborn still needing oxygen after 36 weeks.
Results: From the 190 cases I found
53 cases of SNC
73 cases acute CAM
33 cases of MVM
Conclusions: There were a large number of severe CAM and SNC in CLD cases. This result confirms previous studies.
However, this study also shows that MVM is another significant factor in the development of CLD. MVM starts from maternal floor vascular disease (atherosclerosis, fibrinoid necrosis, decidual degeneration) and develops into fetal hypoxia and hypo nutrition and results in developmental problems, VLBW, organ damage, and complications with CLD.

68.
CLINICAL AND PATHOLOGICAL PLACENTAL ABNORMALITY IN VELAMENTOUS CORD INSERTION

Masayoshi Arizawa. *Tokyo Metropolitan Ohtsuka Hospital*

Object: There are many reports about how velamentous cord Insertion (VCI) can lead to small for gestational age (SFG) and complications with twins and triplets, Hypertension disorder of pregnancy (HDP), and gestational diabetes (GDM). VCI means membranous insertion of umbilical cord which can lead to complications.
In this paper I examine clinical and pathological pictures in VCI cases.
My hypothesis, based on my results, shows how VCI may develop from the lack of circulation on the mother's side of the placenta. This maternal floor physiological problem can lead to the shape of the placenta changing and abnormal cord insertion.
Materials: I examined both gross and microscopic pictures in 109 VCI cases and also examined the clinical records in each case.
Results:
From the 109cases, there were:
By gross examination: