Aim: To Detect the small and slow blood flow of the placenta is expected to be useful for deterring vascular diseases such as placental factor and Hypertensive disorder pregnancy (HDP). This study presents open source image processing software for science. We examined the relationship between image analysis of placental slow blood flow area and placental pathology findings.
Methods: (1) FGR case with chronic intervilulitis(n=1). (2) HDP with placental abruptio. (n=1) (3) Normal pregnant woman (n=1). Ultrasonic sonography apparatus (a) Aplio i 700 (Canon Medical Systems). (b) Voluson E10 (GE Healthcare) (1) The Aplio i 700 used the mSMI and cSMI. (2) The Voluson E10 used the Slow flow HD & Radiant flow, 3D-power doppler. The image was taken into Image J, and the ROI for image analysis was re-identified on Image J.
Results: This study shows that signal strength of the intra-placental blood flow with a small and complex form.
Discussion: In this study It was possible to show the identification and signal intensity of placental blood flow with fine and complicated morphology by Image J. And, Analysis of FGR intraplacental blood flow is expected to lead to an indicator of severity.
Conclusions: It is possiblity fetal blood vessels of around 0.1 mm may be detected. It is expected that this study will be on the step for the determination of reduced placental blood flow and the ischemic region.

54.
PREVALENCE OF CHRONIC ENDOMETRITIS IN 14 PATIENTS WITH IMPLANTATION FAILURE AND THE REPRODUCTIVE OUTCOME

Mika Handa, Tsuyoshi Takiuchi, Futa Ito, Naoko Takahashi, Masako Kanda, Sachi Takaoka, Tatsuya Miyake, Tadashi Kimura. *Department of Obstetrics and Gynecology, Osaka University*

Objective: The aim of this study was to investigate the prevalence of chronic endometritis (CE) in infertile women with a history of implantation failure (IF) and to determine whether antibiotic treatment improves their reproductive outcome in the following frozen embryo transfer (FET) cycles.
Methods: A retrospective study was performed at our institution from October 2018 through June 2019. Proliferative phase endometrial biopsy obtained from 14 infertile women with IF were subjected to immunohistochemical/histopathologic diagnosis of CE. Following antibiotic administration to the CE group, their histopathologic cure rate and reproductive outcome in the subsequent FET cycles were examined.
Results: In 14 infertile patients with IF, 35.7% (5 of 14) of them were diagnosed with CE (CE group). Following the doxycycline treatment, the histopathologic cure rate in the subsequent endometrial biopsy was 20% (1 of 5). Following the metronidazole/ciprofloxacin treatment, the overall cure rate was 60% (3 of 5). Among 7 patients in non-CE group, one patient achieved a clinical pregnancy, and two were diagnosed with chemical pregnancy in cumulative FET cycles. In CE group, only one patient, who was recovered from CE after the second-line treatment, attempted the FET and achieved a clinical pregnancy in the second FET cycle, although she experienced five failed FET cycles before the diagnosis of CE.
Conclusion: We found CE in 35.7% of infertile women with a history of IF in our institution and the clinical pregnancy after the treatment of CE. Further investigations are warranted.

55.
THREE CASES OF VASA PREVIA

Yangsil Chang [1], Mariya Kobayashi [1], Midori Taniguchi [1], Naoya Shigeta [1], Takahide Maenaka [1], Hiroaki Tsubouchi [1], Kayoko Shikato [1], Takeshi Yokoi [2], Kazuhide Ogita [1]. [1] *Department of Obstetrics and Gynecology, Rinku General Medical Center;* [2] *Department of Obstetrics and Gynecology, Kaizuka City Hospital*

Introduction: Vasa previa is uncommon, but intrapartum diagnosis is very important. We had 3 cases of vasa previa.
case1: A 41-year-old woman was referred for low-lying placenta. Vaginal ultrasonography revealed a low-lying placenta and velamentous cord insertion with low-lying placenta. The placenta had migration, but transvaginal color Doppler ultrasonography revealed fetal blood vessels covering the internal cervical os, a finding consistent with vasa previa. The patient underwent a scheduled cesarean delivery at 36 weeks of gestation.
case2: A 35-year-old woman was referred for placenta previa. The placenta had migration, and transvaginal color Doppler ultrasonography revealed fetal blood vessels covering the internal cervical os. The patient underwent a scheduled cesarean delivery at 36 weeks of gestation.
case3: A 31-year-old woman was referred for low-lying placenta. T The placenta had migration, but transvaginal color Doppler ultrasonography revealed fetal blood vessels covering the internal cervical os, a finding consistent with vasa previa. The patient underwent a scheduled cesarean delivery at 37 weeks of gestation.
Conclusion: The antepartum diagnosis of vasa previa improves the perinatal survival rate.

56.
ANGIOGENESIS CAPACITY OF MESENCHYMAL STEM CELLS DERIVED FROM PREECLAMPTIC PLACENTA

Noriko Nagata [1,2], Naoki Fuchi [1], Tao-Sheng Li [2], Kiyonori Miura [1]. [1] *Department of Obstetrics and Gynecology, Nagasaki University Graduate School of Biomedical Sciences;* [2] *Department of Stem Cell Biology, Atomic Bomb Disease Institute, Nagasaki University*

Objectives: Human placental mesenchymal stem cell (MSC) has been suggested as a possible therapeutic potentials for the pregnancy-related disorders. In this study, we analyzed the tube formation ability of human preeclamptic placenta-derived MSC (PE-MSC) to assess the angiogenesis capacity via paracrine effect of MSCs.
Methods: PE-MSCs (n=5) and physiologic placenta-derived MSCs as a control (CTL-MSC, n=8) obtained following written informed consent, were primarily isolated and cultured for 48 hours in a serum-free medium, then their conditioned mediums (CM) were extracted. Human umbilical vein endothelial cells (HUVEC) were seeded on matrigel-coated plates and cultured with PE-CM, CTL-CM, complete medium which contains serum and angiogenic factors as positive control (PC) and serum-reduced medium as negative control (NC). Following incubation for 16 hours, each tube formation of HUVECs was observed under a light microscope, and the average of total mesh area and total tube length was calculated by Image J software. Statistical significance was determined using Mann-Whitney U tests. This study protocol was approved by the IRB for Ethical, Legal and Social Issues.
Results: The total area was significantly larger in PE-CM than in CTL-CM, and the total segment length was significantly longer in PE-CM than in CTL-CM.
Conclusion: Our findings supported that conditioned medium of placental MSCs derived from patients affected by preeclampsia had significant angiogenic features in comparison with those from physiologic pregnancy.

57.
MATERNAL FLOOR INFARCTION ASSOCIATED WITH FETAL GROWTH RESTRICTION:A CASE REPORT

Toshiko Minamoto [1], Nagisa Tatsumi [1], Sonomi Kurose [1], Kiyoka Sawada [1], Yuki Yoshimura [1], Hitomi Yamashita [1], Tomomi Hara [1], Tomoka Ishibashi [1], Masako Ishikawa [1], Aki Oride [1], Kentaro Nakayama [1], Haruhiko Kanasaki [1], Satoru Kyo [1], Noriyoshi Ishikawa [2]. [1] *Department of Obstetrics and Gynecology, Shimane University;* [2] *Department of Pathology, Organ Pathology Section*

Introduction: Maternal floor infarction (MFI) is a rare disease and is one of the causes of fetal growth restriction.there are few reports of its clinical reports.We report MFI cases diagnosed at our department.
Case: The authors report a case of a 20-year-old Japanese primipara who became pregnant spontaneously. She was introduced to our depertment to close examnation purpose at 30 weeks of gestation. At the first examination, there were no morphological abnormalities or blood flow abnormalities other than FGR of 3SD and mild amniotic fluid loss (AFI 8.2). Fetal