

OC19.06

A prospective observational study to validate the reliability of the early pregnancy viability scoring systemO. Wan², S.S. Chan¹, G. Kong²¹Department of Obstetrics and Gynecology, Chinese University of Hong Kong, Hong Kong; ²Department of Obstetrics and Gynecology, Prince of Wales Hospital, Chinese University of Hong Kong, Hong Kong**Objectives:** Miscarriage has a significant social and psychological impact on pregnant women. A common question asked by a woman is how likely their pregnancy will be viable especially when with bleeding. A prediction model on the chance of an early pregnancy being viable or not may help. Bottomley et al. designed a prediction model based on women's age, symptoms of bleeding and ultrasound parameters to determine the likelihood of a viable pregnancy at the end of first trimester. Yet, further study is required to show its validity and practicability.**Methods:** All Chinese women attending early pregnancy assessment clinic were invited, excluding those diagnosed to have miscarriage on first visit, having termination of pregnancy and ectopic pregnancy. Women's age and bleeding score were assessed to calculate the combined scoring to predict the pregnancy outcome. Ultrasound was performed to assess mean gestational sac size, presence of fetal heart beat and mean yolk sac diameter. Pregnancy outcome was assessed at 13–16 weeks of gestation by either phone contact or reviewing medical record system. Receiver operating characteristic (ROC) curve was used to calculate the accuracy of this model.**Results:** A total of 1086 subjects were recruited in the study with 30 of them excluded from the analysis (ectopic pregnancy, failed pregnancy of unknown location, having termination of pregnancy with 2 lost to follow-up). Mean maternal age was 31.2 years old (range 18–47). Among 1056 women, 915 (86.6%) had ongoing pregnancy after first trimester and 141 (13.4%) had miscarriage. The viability score was calculated according to the combined scoring system. Receiver operating characteristic curve was constructed according to the relationship between the viability score and actual pregnancy outcome. The area under curve was found to be 0.91.**Conclusions:** The early pregnancy viability scoring system combining women's age, bleeding score and ultrasound parameters could predict the pregnancy outcome after first trimester accurately.

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Variations in the quality of ultrasound scanning among early pregnancy unitsM. Memtsa¹, D. Jurkovic³, J.A. Ross²¹EGA Institute for Women's Health, UCL and UCLH NHS Foundation Trust, London, United Kingdom; ²Early Pregnancy and Gynecology Assessment Unit, King's College Hospital, London, United Kingdom; ³EGA Institute for Women's Health, UCL and UCLH NHS Foundation Trust, London, United Kingdom**Objectives:** To assess the rates of non-diagnostic ultrasound scans in different early pregnancy units.**Methods:** This was a prospective multicentre observational study which included seven early pregnancy units in Greater London (UK). 4048 pregnant women were seen in the participating units over a period of two months and were included in the study. The outcomes of interest were the proportion of non-diagnostic scans, follow-up attendances and attendances including blood tests.**Results:** The rate of non-diagnostic ultrasound scans varied between 6% and 30% among different early pregnancy units. There was a positive correlation between the rate of non-diagnostic scans and proportion of follow-up attendances and attendances including blood tests ($P < 0.001$).**Conclusions:** Our study has shown significant variations in the quality of early pregnancy ultrasound scanning using the rate of non-diagnostic scans as the quality indicator. Higher rates of non-diagnostic scans result in higher number of blood tests and follow up visits.

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Does fetal growth in the first trimester correlate with the amount and duration of vaginal bleeding or abdominal pain? A preliminary studyS. Saso¹, M. Al-Memar², L. Ismail¹, S. Bobdiwala², P. Roelants³, G. Nikolic³, D. Popovic³, C. Stalder², B. De Moor³, T. Bourne³¹Department of Obstetrics and Gynecology, Imperial College London, London, United Kingdom; ²Early Pregnancy and Acute Gynecology Unit, Queen Charlotte's and Chelsea Hospital, Imperial College London, London, United Kingdom; ³Department of Electrical Engineering, STADIUS Center for Dynamical Systems, Signal Processing and Data Analytics, KU Leuven, Leuven, Belgium**Objectives:** Explore the relationship between the rate of crown-rump length (CRL) growth in the first trimester from the initial presenting scan to the level I (12 week) scan and amount and duration of vaginal bleeding and abdominal pain between these two time points.**Methods:** The patients that were included in this study all presented to our unit between 10/2010 and 08/2013. They were grouped according to the initial presenting complaint (PC): group I, vaginal bleeding; group II, abdominal pain; and group III, vaginal bleeding and abdominal pain. All patients underwent a transvaginal ultrasound scan at each presentation. The variable of interest was CRL.**Results:** Data was recorded for 221 patients. 160 patients were included in the study. They all had a viable pregnancy recorded at the level I scan. A pairwise plot shows correlations between the different variables: (CRL vs. vaginal bleeding; CRL vs. abdominal pain; CRL vs. vaginal bleeding and abdominal pain). The samples are coloured by PC group.The overall results demonstrate no correlation between the amount and duration of vaginal bleeding and abdominal pain and CRL growth in the first trimester. Interestingly, a statistically significant correlation was found between a lower CRL and a higher bleeding score of those patients that presented at least three times to the unit during the first trimester ($n = 13$). Also, certain correlation coefficients are high and thus of potential interest.**Conclusions:** The sub-group finding that those patients who present more frequently with vaginal bleeding may have a reduced CRL is of huge interest and calls for a repeat study with a much increased sample size. The overall finding of no correlation is important when it comes to reassuring women who present with the above two symptoms in the first trimester.

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Do pregnancy outcomes correlate with the amount and duration of vaginal bleeding or abdominal pain in the first trimester? A preliminary studyS. Saso¹, M. Al-Memar³, L. Ismail¹, S. Bobdiwala³, P. Roelants², G. Nikolic², D. Popovic², C. Stalder³, B. De Moor², T. Bourne⁴¹Department of Obstetrics and Gynecology, Imperial College London, London, United Kingdom; ²STADIUS, KU Leuven, Leuven, Belgium; ³Early Pregnancy and Acute Gynecology Unit, Queen Charlotte's and Chelsea Hospital, Imperial College London, London, United Kingdom; ⁴Women's Ultrasound Centre, London, United Kingdom