Objectives: The aim of this study is to validate scoring model and secondly to develop nomogram predicting peripartum complications (ie, Caesarean hysterectomy, uterine artery embolisation and blood transfusion) in placenta previa. We previously demonstrated a scoring model predicting adverse outcome in women with placenta previa delivered in our institution from 2011 to 2013.

Methods: For validation, a prediction model composed of six factors (type of previa, lacunae, uteroplacental vascularity, multiparity, history of CS and history of previa) was suggested from data of 141 singleton pregnant women with placenta previa delivered by Caesarean section (CS) from January 2014 to January 2018. Validation of this model was performed using logistic regression analysis and receiver operating characteristic (ROC) curve analysis. For the construction of nomograms, we included 254 singleton pregnant women with placenta previa delivered by Caesarean section from January 2011 to January 2018. Nomograms predicting peripartum complications were developed based on multivariable logistic regression models.

Results: In validation ROC study, the AUC for the prediction of composite complication was 0.74 (0.66-0.83) with 61.5% sensitivity, 83.1% specificity, 78.7% positive predictive value and 68.0% negative predictive value at score 5. In the ROC analysis of each complication, the AUC were 0.94 (0.88-0.99) with optimal cut off of score 7 for hysterectomy, 0.89 (0.80-0.98) with optimal cut off of score 6 for uterine artery embolisation and 0.74 (0.66-0.83) with optimal cut off of score 5 for transfusion. Nomograms for the prediction of peripartum complications were constructed including only three factors in scoring model such as history of prior CS, type of placenta and uteroplacental vascularity.

Conclusions: Our scoring model and nomograms for predicting peripartum complications will provide valuable information to patients with placenta previa.

Supporting information can be found in the online version of this abstract

OP05.05
Comparison of contrast-enhanced ultrasound (CEUS) with colour Doppler ultrasound in the assessment of perfusion in morbidly adherent placenta

W.C. Chen

Ultrasound, Dongguan Hojie Hospital, Dongguan, Guangdong Province, China

Objectives: The purpose of this study was to compare the value of CEUS using a microbubble contrast agent with colour Doppler ultrasound in the assessment of perfusion in morbidly adherent placenta.

Methods: Thirty-four patients of morbidly adherent placenta after delivery hospitalised in our hospital were examined by gray-scales ultrasound, colour Doppler ultrasound, and CEUS. The enhanced features of lesions, myometrium, and the serous layer were observed. A manually designed region of interest (ROI) was placed around the lesion by grey scale ultrasound, the colour region by colour Doppler ultrasound and the enhanced area of the abnormal mass. The areas of the lesion by three methods were obtained by software package QLAB. The abnormal mass area by grey scale ultrasound were compared with the enhancement area by CEUS.

Results: The lesions showed hyperenhancement. Some sections of the mass, which were later proven to be hematocoele or necrotic placenta tissue, never enhanced during the examination. The abnormal mass area by grey scale ultrasound was 1400.1±1447.4mm², the enhancement area was 866.9±636.4mm², the colour Doppler area was 229.7±203.1mm². The gray-scale area was larger than that of enhancement, Z=2.67, p=0.007. The enhancement area was larger than that of colour Doppler area, Z=5.176, P=0.000.

Conclusions: CEUS can value the perfusion, area, location of the morbidly adherent placenta more accurately than colour Doppler ultrasound and may be useful for the clinic decision.

Supporting information can be found in the online version of this abstract

OP05.06
Abstract withdrawn

OP05.07
Management of the morbidly adherent placenta previa with internal iliac arteries temporary balloon occlusion and Caesarean hysterectomy


Second Department of Obstetrics and Gynecology, Wroclaw Medical University, Wroclaw, Poland

Objectives: The use of selective Doppler studies in predicting severe forms of abnormally invasive placentation (AIP), specifically percreta. Future case control studies would further validate its predictive values for severe forms of AIP.