Effectively predicting cesarean delivery in nulliparous women

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In a study to be presented on Feb. 4 in an oral concurrent session at the Society for Maternal-Fetal Medicine's annual meeting, The Pregnancy Meeting, in Atlanta, researchers will present findings from a study titled, How to Predict Cesarean Delivery in the Nulliparous Patient: Results from the Prospective Multi-center Genesis Study. The objective of the Genesis study, was to assess the use of a range of demographic, clinical and ultrasound features to develop a predictive tool for cesarean delivery (CD) in nulliparous, singleton pregnancies.

In contemporary obstetric practice the majority of women now require medical intervention for safe childbirth. Despite all of this obstetric intervention we cannot predict which women will experience the greatest of difficulties during labor. In this study a detailed clinical evaluation and ultrasound assessment were performed after 39 weeks' gestation. Women and their managing clinicians were blinded to the ultrasound derived fetal biometry. This study developed a risk scoring tool based on five easy to record parameters, which accurately predicts an individual woman's risk of CD.

Of 2,336 women recruited to the Genesis Study, 491 (21%) had an unplanned cesarean delivery. In a multivariate analysis, five parameters were determined to be the best combined predictors of CD. These were advancing maternal age, short maternal height, higher body mass index, a larger fetal abdominal circumference and increasing fetal head circumference. The study's conclusion was that, by using these five factors, overall risk of CD in nulliparous women at term can be better

determined.

Naomi Burke, M.D. lead researcher on the Genesis Study stated "We developed a simple risk scoring system for cesarean delivery in first time mothers. We hope this will aid women and obstetricians with decisions about labor and delivery". Burke will present the findings at the SMFM annual meeting.

Fergal Malone, chairman of the Perinatal Ireland Research Consortium commented, "This risk assessment tool may be useful for planning service needs as well as for individual patient's decisions on place and mode of delivery."

Provided by Society for Maternal-Fetal Medicine