**EP35.04. Value of exploring cervical elastography quantitative analysis technique for predicting preterm delivery in patients with late pregnancy.**

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**Objectives**

To explore the value of predicting premature delivery in patients with late pregnancy by quantitative analysis of cervical elastography.

**Methods**

The subjects were 111 women in late gestation who received prenatal examination at Chengdu Women’s and Children’s Central Hospital from January to December 2018. The elasticity map in cervical median sagittal plane were gotten by transvaginal ultrasound elastography, and multiple elastography parameters were obtained by quantitatively analysing the elastography map. These were IOS (elastic mean value in the 1 cm radius of cervix inner os), EOS (elastic mean value in the 1 cm radius of cervix outer os), ER (ER=IOS/EOS) and CL (cervical length). Based on the gestational week of delivery, they were divided into the preterm group (>28 and <37 weeks’ gestation) and the full-term group (≥37 weeks’ gestation). The differences of elastography parameters between the two groups were compared by independent sample t-test. ROC curves were constructed for elastography parameters for preterm delivery. Threshold value, sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) of IOS and ER were calculated separately.

**Results**

There were 9 cases in the preterm group and 92 cases in the full-term group. Parameters in the preterm group vs the full-term group, IOS (0.40 ± 0.11) vs (0.32 ± 0.10), ER (1.17 ± 0.31) vs (0.94 ± 0.31), CL (2.46 ± 0.91 cm vs 3.70 ± 0.87 cm), the differences were statistically significant (P<0.05), but EOS (0.35 ± 0.10) vs (0.36 ± 0.10), there were no statistically significant differences (P>0.05). The area under ROC curve (AUA) of IOS, EOS, ER, CL for predicting preterm delivery was 0.715, 0.501, 0.720, 0.168. The threshold value, sensitivity, specificity, PPV, NPV of IOS/ER were 0.435/1.255, 52.6%/47.4%, 85.9%/88.0%, 45.5%/45.0%, 89.8%/89.0%.

**Conclusions**

The parameters obtained by the quantitative analysis technique of cervical elastography have certain predictive value for preterm delivery, and provide new method for clinical prediction of preterm delivery.