OP08.02. Predictive value of cervical length by transvaginal sonography at 20-24 weeks to preterm delivery in twin pregnancy

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Introduction

Preterm birth is one of the major causes of neonatal morbidity and mortality and occurs more often in twin than in singleton pregnancies. Previous reviews have suggested that transvaginal sonographic assessment of cervical length (CL) is one of the most effective tools for preterm birth in singleton pregnancies. The aim of this study was to investigate the value of cervical length (CL) by transvaginal sonography (TVS) at 20-24 weeks for the prediction of preterm delivery in twins.

Methods

This retrospective study was performed on 870 twin pregnant women, 670 met our inclusion criteria with the CL evaluated routinely between 20-24 gestational weeks by TVS. The pregnancy outcomes were followed. Receiver-operating characteristic (ROC) curves were generated to determine the CL associated with preterm birth. The predictive value of CL was evaluated by calculating the optimal cut-off point with sensitivity and specificity.

Result

The rate of spontaneous preterm birth (SPB) before 34, 32, and 28 weeks were 10.5%, 7.2%, and 1.9% (N=89, 61 and 16). The median CL of full-time delivery, SPB<34w and SPB<32w were 36.2±7.3 mm, 29.3±11 mm and 28.2±12.4 mm, respectively, with significant differences (P<0.01). ROC curves were generated for SPB <34 w, < 32 w and <28 w which demonstrated AUC of 0.69, 95% CI (0.62–0.75) (Fig 1), 0.69, 95% CI (0.60–0.77) (Fig 2), 0.71, 95% CI (0.55–0.86) (Fig 3). The optimal cut-off points were 29.3 mm (sen41.6%, spe91.6%), 30.0 mm (sen45.9%, spe88.1%) and 24.3 mm (sen50%, spe93.5%).

Conclusion

CL measured by transvaginal sonography between 20–24 weeks is a good predictor of preterm delivery before 34 weeks, 32 weeks, and 28 weeks.