



Prediction of preterm delivery by late cervical length measurement

Papastefanou I, Pilalis A, Michalitsi V, Eleftheriadis M, Kassanos D, Souka A

3rd Department of Obstetrics and Gynecology, Attikon Hospital, University of Athens Medical School, Athens, Greece

Objective

To examine the value of the cervical length (CL) measurement at 24 to 30 gestational weeks in the prediction of spontaneous preterm delivery at or before 34 weeks (SPD34) and at or before 37 weeks (SPD37).

Methods

Prospective cross sectional study in routine obstetric population using transvaginal ultrasound examination to measure CL at 24 to 30 weeks.

Results

1,180 singleton pregnancies were examined. 10 women (0.85%) had SPD34 and 60 (5.08%) had SPD37. CL was significantly shorter in the women that had a SPD34 (median CL =11 mm) compared to the women that delivered after 34 weeks (median CL =31 mm). Similarly CL was significantly shorter in the women that had SPD37 (median=22mm) in comparison to the ones that delivered after 37 weeks (median=31mm). CL was the only significant predictor of SPD34 (OR=0.837, AUC=0.94, $p < 0.001$) and SPD37 (OR=0.907, AUC=0.75, $p < 0.001$). The model achieved sensitivity of 70% and 38% for SPD34 and SPD37 respectively for 10% false positive rate.

Conclusion

CL after 24 weeks is significantly shorter in women destined to spontaneously deliver prematurely. In low risk singleton pregnancies CL performs very well in predicting SPD34 and adequately in predicting SPD37.