Introduction
The aim of this study was to investigate the role of transperineal ultrasound in predicting the mode of delivery.

Materials & Methods
This was a prospective, observational study involving 110 low-risk parturients at term with singleton fetus in cephalic presentation. Transperineal ultrasound was performed 60 minutes after confirmation of a fully dilated cervix by digital examination. Angle of progression (AoP) and head direction (HD) were assessed between contractions by single observer. All cases were classified into three groups: vaginal delivery (VD), vacuum extractor (VE) and Caesarean section (CS) for failure to progress.

Results
Out of the 110 women enrolled 59 (53.6%) had vaginal delivery, 13 (11.8%) had vacuum extractor due to labour arrest and 38 (34.5%) required Caesarean section for the same reason. Among women who delivered vaginally (VD) the mean value of angle of progression (AoP) and angle of head direction (HD) were significantly higher than observed in VE and CS group (137° vs. 125° vs. 119°; 22° vs. 0° vs. -5°, respectively, student’s p test < 0.001). AUC was 87.6% (95% CI, 81.3 - 93.9) for AoP and 92.2% (95% CI, 87.5 - 97.0) for HD. An AoP ≥ 128° and an angle of HD ≥ 9° were the best predictors of successful vaginal delivery (sensitivity 81% and 83%, specificity 83% and 86%, respectively).

Conclusion
Transperineal ultrasound measurements of angle of progression (AoP) and head direction (HD) might be useful tool in prediction the outcome of labour in women during second stage. Both parameters are strongly associated with remaining time in labour.