Objective
To evaluate if a score based on ultrasound measurements (cervical length, perineal-fetal presentation distance, and the position of the fetal occiput) before the induction of labour is a good predictive test of vaginal delivery within 24 hours and compared this to the Bishop's score.

Methods
This is a monocentric prospective study of 30 patients, who underwent a labour induction in the department of obstetrics and gynecology at Mongi Slim Hospital from February to April 2015. Ultrasound measurements of the distance between the perineum and the foetal presentation (with transperineal ultrasound), of the cervical length (with transvaginal ultrasound) and of the position of the occiput were collected before induction. The Bishop score was also calculated for these patients, without receiving ultrasound data (and vice versa), in order to determine the mode of induction. Receiver Operating Characteristics (ROC) curves were used to evaluate performance of the ultrasonographic score and the Bishop score for predicting vaginal delivery within 24 hours.

Results
The area under the ROC curve for ultrasonographic score was 0.7 (IC95% 64, 2–82, 2%). The area under the ROC curve for Bishop score was 0.781 (IC95% 64, 6–100%). The comparison of these areas under the curve has shown a difference of 11.3% with a P-value of 0.05 in a two-tailed test.

Conclusion
An ultrasonographic score made with a combination of these ultrasound measurements appears to be an effective test to predict the chances of vaginal delivery within 24 hours during induction of labour.