Prediction of the outcome of labour in induced prolonged pregnancy by transvaginal ultrasonographic measurement of cervical length

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Objectives:
Induction of labour is an intervention to artificially initiate uterine contraction leading to progressive dilatation and effacement of cervix and birth of the baby. The traditional method of predicting a successful vaginal delivery in induced labour is based on Bishop Score. This is subjective and had shown a poor predictive value of Bishop Score for the outcome of induction. The objective of this study was to correlate the preinduction cervical length measured by transvaginal ultrasonography (TVS) with the mode of delivery.

Methods:
This study was conducted in Department of Obstetrics and Gynecology for one year. One hundred pregnant women with prolonged pregnancy planned for induction of labour were included. Cervical length was measured by TVS prior to induction of labour. The primary outcome was the mode of delivery.

Results:
The mean age was 23.84±4.56 years. Among 100 patients, 53% had vaginal delivery and 47% had caesarean section. Primigravida were 63 and 37 were multigravida. On the basis of cervical length, the patients were divided into two groups. One group with cervical length ≤25mm and the other group with cervical length >25mm. There were 54 patients with cervical length ≤25mm and 46 patients with cervical length >25mm. There was a significant correlation between cervical length and mode of delivery with p<0.001. Those who had cervical length ≤25mm, 77.7% had vaginal delivery and 22.3% had caesarean Section. Among those who had cervical length >25mm, 23.9% had vaginal delivery and 76.1% had caesarean section. There was also significant association of parity with cervical length. Comparing multigravida with primigravida with cervical length ≤25mm, 82.7% versus 72% had vaginal delivery. Similarly comparing multigravida with primigravida with cervical length >25mm, 37.5% versus 21% had vaginal delivery.

Conclusion:
Cervical length measured by transvaginal ultrasound can predict the outcome of induced labour in prolonged pregnancy.

Keywords: Prolonged pregnancy, induced labour.