

A COMPARATIVE STUDY OF TRANSVAGINAL ULTRASOUND AND BISHOP'S SCORE FOR PREINDUCTION CERVICAL ASSESSMENT

ABSTRACT

BACKGROUND AND OBJECTIVE:

With the increasing rate of cesarean section, there is increasing awareness in ways to reduce the primary cesarean section rate. Failed induction being one of the causes of cesarean section, is associated with very many complications both maternal and fetal. By appropriate selection of candidates by an ideal method for induction of labour, these complications may be avoided. The traditionally used Bishop's scoring system is highly subjective and associated with varying results. Hence is the need for a more objective method of preinduction cervical assessment.

METHODOLOGY:

150 nulliparous women admitted at Government Rajaji Hospital who were planned for induction of labour for various indications were selected in random. They were assessed by the obstetrician for obstetric examination and Bishop's score estimation. The same set of patients were subjected to transvaginal sonography for assessing three parameters which are actually few of the five components of Bishop's score, cervical length, posterior cervical angle and percentage of funneling.

The transvaginal sonographic parameters were measured and recorded. The outcome of the labour followed up. The induction- delivery interval noted down. If the induction delivery interval is more than 24 hours irrespective of the mode of delivery or if the mode of delivery was cesarean section irrespective of the induction delivery interval, the outcome is considered as failure.

RESULTS:

Among the 150 women, there is found to be a significant preinduction cervical assessment by Bishop's score (p-value <0.05) as compared to transvaginal sonographic parameter with p-value<0.001.

Cervical length with a cutoff of 30mm has a sensitivity (86.07) and positive predictive value(88.24) better than Bishop's score in preinduction cervical assessment.

Posterior cervical angle is more specific than Bishop's score evident by the ROC curve.

Percentage of funneling is more sensitive(82), specific(82.14) and has a higher positive predictive value(92.54) than Bishop's score.

CONCLUSION:

Transvaginal sonography is a more significant and objective method for preinduction cervical assessment. The parameters measured are cervical length, posterior cervical angle and percentage of funneling are also significant in preinduction cervical assessment. The comprehensive transvaginal score is more significant in preinduction cervical assessment than Bishop's score.(p-value <0.001).