Summary

The prediction of the success of labor induction is still considered to be a good mastered skill in the art of obstetrics. Its mastering would improve the management of many cases, and this is why innumerable studies were done aiming to reach appopriate methods of patient selection to guarantee a high probability of success of the induction of labor. Until now Bishop score is the most widely used method, but it has a major drawback of being subjective i.e. it depends on the clinician s skill.

The prelabor condition of the cervix is believed to be one of the most important predictors of successful induction. Traditionally, assessment of the cervix prior to labor induction has been accomplished by using the Bishop score, which remains the current standard for predicting the outcome of labor induction. However, this assessment is somewhat subjective and has a high intra- and inter-observer variation.

In contrast, transvaginal ultrasound assessment of the cervix is an objective and more reproducible method, and moreover, it allows visualization of the cervix beyond the closed external os. Importantly, both transvaginal ultrasonographic measurement of the cervical length and the Bishop score predicted successful induction of labor, but the diagnostic accuracy of sonographically measured cervical length was not superior to that of the Bishop score. However, the value of these parameters has been examined only in women with singleton gestations undergoing induction of labor. At present, there are no data about the predictive value of these parameters for successful labor induction in twin gestations.

The advantage of Bishop score is that it is simple and easy to perform, but it is subjective and has a high intra and interobserver variation. Several studies may shown that it is a poor predictor of outcome but may help to predict the length of the latent phase.

Recently, cervical length measured by transvaginal ultrasonography started to be considered an objective marker of the state of cervical ripening, and hence it was postulated to be of potential value as apredictor of successful labdivmduction.

The aim of this prospective study is to compare transvaginal sonography for cervical length measurement and digital examination for Bishop score assessment in women undergoing labor induction at term, to assess their tolerability (in terms of pain) and ability to predict the need for Cesarean delivery.

The current study was done in Etay Elbaroud General Hospital and included 120 patients admitted for various indications for induction of labor. Patients with rupture of membranes, malpresentation, or fetal distress were excluded from the start.

The presence or absence of cervical funnling measured by transvaginal ultrasound was found to be of no predicted value in prediction of successful labor induction.

The patients were examined for detection of cervical length and observation of presence of cervical funnling by transvaginal ultrasonography before starting induction of labor.

The results obtained showed that 80 women had Bishop score ≥ 5 this group had higher rate of vaginal delivery 90.9% and had shorter durations of induction to delivery interval compared to those with Bishop score <5.

The results obtained showed that 75 women had cervical length <30 mm, this group had higher rate of vaginal delivery 78.7% and had shorter durations of induction to delivery interval compared to those with cervical length > 30 mm.

The present study showed highly significant correlation between cervical length and both the Bishop score and duration of labor. The value of cervical length detection appear when Bishop score is unfavorable.

The Bishop score and transvaginal ultrasound assessment of the cervical length were tolerable for all our patient.

conclusion

we found that both Bishop score and cervical length measured by transvaginal ultrasonography are good predictors of successful labor induction the important of detection of cervical length became evident in cases with Bishop score <5 as it can differentiate between two subgroups of different obstetric prognosis, cervical length has been shown to be of no value when Bishop score >5.