Induction of labor in high-risk nulliparous women with unfavorable cervix: retrospective study

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Objective. The aim of the study is to evaluate the success rate, safety and time to delivery for induction of labor (IOL), with the use of dinoprostone 10 mg controlled-release vaginal insert or by the Foley balloon method, in the case of high-risk pregnancy nulliparous women with Bishop score < 4.
Materials and Methods. A retrospective study of 229 women who underwent IOL, either with dinoprostone or by the Foley balloon method. In the first instance, if labor had not been successfully induced after the removal of the dinoprostone, oxytocin was administered. As for the second group, the bishop score was re-evaluated after foley removal and patients continued the induction with dinoprostone (if Bishop < 6) or Oxytocin (if Bishop > 6). After dinoprostone removal and no labor, oxytocin was administered. The Caesarean section (CS) rate, along with demographic characteristics and fetal and maternal complications were recorded. Time to delivery was tracked.
Results. The CS rate was superimposable between groups (37.56% *vs* 34.37%, p = 0.88). The BMI of women who underwent CS was significantly higher, 27.30 *vs* 26.52, p = 0.012. Time to delivery was statistically lower in the dinoprostone group (26.82 h), as opposed to the Foley group (48.25 h) (p < 0.0001). No differences in complications (p = 0.3).
Conclusions. The CS rate was superimposable in both groups. A higher BMI was the only significant risk factor for CS. Starting with dinoprostone resulted in a significantly shorter induction, with the same maternal-fetal outcomes. There is no need therefore to prolong the induction and raise maternal stress levels, as this will not yield better outcomes.