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• **The Value of Interleukin-8 and Interleukin-6 in Cervical Secretions as Predictors of Preterm Delivery**

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Background: Preterm birth occurs in 8% to 11% of all pregnancies and is responsible for 75% to 80% of all neonatal deaths. Cytokines may be involved in the etiology of preterm birth through their stimulation of prostaglandin synthesis. Cytokines may be released into cervicovaginal fluid during the breakdown of the chorio-decidual adhesion or from an inflammatory reaction in the same area. The aim of this study was to determine whether the values of interleukin 8 and 6 in cervical secretions could predict spontaneous preterm birth in asymptomatic high-risk pregnant women. **Materials and Methods:** Levels of interleukin 6 and 8 in cervical samples, collected from 100 pregnant women between 22 to 28 weeks of gestation were measured by ELISA test in Mostafa Khomeini and hazrat-zeinab university hospitals in Tehran, from December 2006 to July 2007. Gestational age at time of delivery was recorded. Receiver operator characteristic curve analysis was used. **Results:** There were 4.8, and 4.4, -fold increase in cervical interleukin 8 and 6 concentrations in early preterm versus term delivery. A single interleukin 8 >751.25 pg/ml, and 1 interleukin 6 >157 pg/ml, was identified early preterm versus term delivery. Sensitivity , specificity, positive and negative predictive values of interleukin 8 in early preterm birth were 89% , 83%, 69% , 94% and for interleukin 6 as 89%, 78%, 63% , 88%, respectively. **Conclusion:** Cervical interleukin 8 and 6 is a sensitive and specific predictor preterm delivery. **Keywords:** Interleukin 6, Interleukin 8, Preterm Birth, Preterm Labor