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## Prediction of Preterm Labor by Fetal Fibronectin

### Key Words

Fetal fibronectin  
High-risk pregnancy  
Preterm labor

### ABSTRACT

**Background.** Prematurity is the major contributor to neonatal morbidity, mortality, pulmonary immaturity, increased intraventricular hemorrhage, neonatal respiratory distress syndrome, persistent pulmonary hypertension, and bronchopulmonary dysplasia.

**Aim.** To evaluate fetal fibronectin as a marker for preterm labor in high-risk pregnant women.

**Methods.** Thirty-four pregnant women with gestational ages ranging from 21 to 34 weeks were given fetal fibronectin immunoassay tests during routine prenatal visits. Samples of cervicovaginal secretions were collected with sterile Dacron swabs, and fibronectin was measured using an Adeza fFN immunoassay kit. Forty-four samples were obtained. In addition, the gestational course, tocolytic therapy, and gestational age at delivery were recorded. Preterm labor pain occurring within 2 weeks after the test was evaluated. Test results and their correlation with patient outcomes were analyzed.

**Results.** Overall, 5 women experienced preterm labor requiring tocolytic therapy within 2 weeks after the tests. Twenty-seven women with negative results had uneventful gestational courses. The test had a sensitivity of 83.3 percent (5/6), specificity of 92.1 percent (35/38), positive predictive value of 62.5 percent (5/8) and negative predictive value of 97.2 percent (35/36).

**Conclusions.** The test for fetal fibronectin had high sensitivity, high specificity, and a high negative predictive value. Fetal fibronectin in cervicovaginal secretions of high-risk pregnant women has potential value as a predictor of preterm labor. (N. Taipei J. Med. 2002;4:51-56)

### INTRODUCTION

Preterm labor is strictly defined as frequent uterine

contractions with or without pain in the face of progressive cervical dilatation or effacement, occurring after the second trimester to 37 weeks of gestation.

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