

**DIAGNOSTIC ACCURACY OF TRANS-
VAGINAL SONOGRAPHIC
MEASUREMENT OF CERVICAL
LENGTH TO PREDICT PRETERM
DELIVERY**

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Introduction

INTRODUCTION

Preterm delivery, defined as delivery before completed 37 weeks of gestation, is associated with a 15-20% mortality rate and remains responsible for 75% of perinatal deaths in fetuses without anomalies. The accurate diagnosis and prediction of preterm delivery remains a major problem in obstetrics (*Shennan et al. 2004*).

A short cervix has been reported to be found as an incidental finding in 29% of pregnant women during mid-trimester transvaginal sonography (TVS) (*Ranch et al. 2007*).

There is no consensus regarding the evaluation of cervical length during pregnancy for predicting preterm delivery. This inconsistency may be explained by differences in study populations (low-or high-risk patients), the parity of participants, the type of investigation (longitudinal or cross-sectional), and racial factors (*Ozdemir et al. 2007*). Furthermore the gestational age at which transvaginal ultrasound cervical length is measured significantly affects the calculation of risk of spontaneous preterm birth. It has been inferred that spontaneous preterm birth risk increases as the length of the cervix declines and as the gestational age decreases (*Berghella et al. 2007*).

In a summary of published data, a recent publication has cited several studies that consistently found a correlation between a short cervical length and a higher rate of spontaneous preterm delivery (*Grimes-Dennis et la. 2007*). The risk probably increases with a progressive shortening of the cervix as shown by a correlation between a greater change in the cervical length and an earlier gestational age at delivery. Ultrasonographic assessment of

cervical length is becoming an increasingly popular component of prenatal care. However, the role of this method as a screening tool in the prediction of preterm delivery in the first or early second trimester of pregnancy is still controversial (*Ozdemir et al. 2007*).

Research Objectives

RATIONALE

It is important to identify the patients at risk for preterm delivery to improve outcomes and to avoid unnecessary treatments, such as cerclage, corticosteroids, antibiotics, and hospital admissions.

AIM OF THE STUDY

The specific aim of the study is to determine the diagnostic accuracy of cervical length measurement using TVS in second trimester between (22-24 weeks) as a predictive value for spontaneous preterm labor in asymptomatic women with singleton pregnancy.

Review of Literature