INTRODUCTION

Preterm premature rupture of the membranes (PROM) occurs in approximately 1% of all pregnancies. **(Gibbs and Blanco, 1982)**. It is associated with 30% to 40% of preterm births and is one of the most common underlying causes of preterm delivery and perinatal death **(Arias and Tamich, 1982)**.

Current trends favor expectant management in an effort to maximize the benefits of increasing fetal maturity and avoid potential harm to the fetus and other. Maternal-fetal infection and fetal distress as a result of cord complications or abruptio placenta may occur, or respiratory distress syndrome as a result of premature delivery despite expectant management may occur **(Vintzileas et al., 1987)** .

Infection acquired in utero is a major threat to the fetus in pregnancies complicated by preterm PROM. The risk of both respiratory distress syndrome and infection decrease as the duration of membrane rupture increases, and as the gestational age at rupture of the membrane increases, and as the gestational age at delivery increases, which supports an expectant approach to the management of preterm PROM **(Ohlsson, 1989)**.

However, the mortality rate has been observed to be seven times higher from neonatal bacterial infection (36%) than from respiratory distress syndrome (5%) (Ohlsson, 1989). Chorioamnionitis is associated with a fourfold increase in neonatal mortality (Morales, 1987).

Congenital infections are usually associated with maternal infection (chorioamnionitis or sepsis) (Ohlsson and Vearncombe, 1987). Infection of the chorioamnion is strongly associated with histologic chorioamnionitis and may be a cause of premature birth (Ohlsson et al., 1987).

Infection rate is inversely proportional to gestational age (Morales, 1987).

Accurate methods to predict and diagnose chorioamnionitis in mothers with PROM would be important tools to prevent and diagnose early fetal and neonatal infections, and thereby further improve outcome (Ohlsson et al.,1987).

Chrioamnionitis can be recognized clinically on the basis of maternal or fetal tachycardia, uterine tenderness or irritability and foul-smelling amniotic fluid (Gibbs et al., 1980). The most common laboratory parameters include maternal leucocytosis (elevated white blood cell count), and erythrocyte sedimentation rate (ESR). Newer techniques

have included analysis of amniotic fluid obtained by amniocentesis for gram stain and microbial culture (**Garite et al., 1979**).

The measurement of C-reactive protein in maternal serum has also been suggested (**Evans et al., 1980**). The usefulness of many of these newer tests for the diagnosis of chorioamnionitis remains controversial.