

Abstract

Objectives

To ascertain the relationship between placental site, placental thickness, and maximum amniotic fluid pool diameter with adverse intrapartum events such as fetal distress, lack of progress and postpartum hemorrhage.

Design

Prospective observational study

Methodology

This study was conducted at Professorial unit Teaching Hospital Peradeniya from 1-11-2003 to 31-04-2004. The study was carried out in 520 pregnant women, who were divided in to three groups as fellows: First group of 200 women, who had anterior placenta and the single deepest vertical amniotic fluid diameter was more than 2cm were selected to study the effect of placental thickness on intrapartum complications and postpartum haemorrhage. The second group consisted of 200 women who had an anterior placenta was recruited for studying the effect of single deepest vertical amniotic pool diameter on intrapartum complications and the postpartum haemorrhage. The third group consists of 120 women further divided in to four sub-groups, each of which each included 30 women. All had a single deepest vertical amniotic fluid diameter more than 2cm with upper segment placenta. Further they grouped into four according to the site of placental implantation (anterior, posterior, fundal, lateral either right or left). Adverse intrapartum

events such as fetal distress, failure to progress and postpartum haemorrhage were studied.

Results

There was an increased risk of developing fetal distress during labour in those who had an anterior placenta and deepest vertical amniotic fluid pool diameter less than 2cm compared to those who had a deepest vertical amniotic fluid pool diameter more than 2cm. ($p=0.001$). There was no correlation between placental thickness with fetal distress ($p=0.127$) and failure to progress ($p=0.233$).

Conclusions

A current ultrasonography measurement with the deepest amniotic fluid diameter less than 2cm has a predictive value for intrapartum fetal distress. But there was no predictive value in measuring placental thickness.