

SUMMARY

Postterm pregnancy is a pregnancy that is calculated to have proceeded beyond the end of the 42nd week [> 294 days] from the onset of the last menstrual period (*Phelan et al., 1987*).

Postterm pregnancy is associated with increased fetal and maternal morbidity and mortality (*Lockwood et al., 1994*).

Oligohydramnios has particular relevance to postterm pregnancies because the volume of amniotic fluid diminishes as gestation advances beyond term (*Divon et al., 1995*). Ultrasound plays an important role in the antepartum fetal surveillance of postterm patients particularly in the determination of amniotic fluid volume and the management of postterm pregnancy depends mainly on antepartum fetal surveillance. Amniotic fluid index is a method described by *Phelan et al. (1987)* for qualitative assessment of amniotic fluid volume. The technique involves dividing the uterine cavity into four quadrants utilizing the linea nigra as the vertical axis and the umbilicus as the horizontal axis. In each quadrant the pocket of amniotic fluid with greatest depth is measured. The four measurements are added together and the sum represents the amniotic fluid index (*Phelan et al., 1987*).

The normal amniotic fluid index at term is 12.9 ± 4.6 cm. Amniotic fluid index ≤ 5 cm indicates oligohydramnios and amniotic fluid index > 20 cm is diagnostic of polyhydramnios (*Phelan et al., 1987*).

This study was carried out at obstetric unit of Benha University Hospital, from March 1997 to May 1988 upon 60 postterm pregnant

women who have no medical or obstetrical problems and have a reliable gestational age of 41 weeks or more at initial evaluation.

Each women was followed up by ultrasonographic examination of amniotic fluid index and non stress test twice weekly. Continuous fetal monitoring throughout labor, grading of meconium and assesment of fetal condition by 1 min. and 5 - min Apgar scores were done.

The aim of this study was to evaluate the use of amniotic fluid index as a predictor of fetal outcome in postterm pregnancy and its accuracy in predicting intrapartum fetal distress and neonatal morbidity and mortality. We found that amniotic fluid index was increased in 19 patients (31.6%), decreased in 40 patients (66.6%) and not changed in one patient (1.6%).

Amniotic fluid index drop to ≤ 5 cm in only seven patients (11.6%) who showed abnormal intrapertum CTG and thick meconium in 100% of cases and low Apgar score 1 min in 85.7% of patients.

Our study showed that increase or decrease in amniotic fluid index of postterm patients had no association with adverse fetal outcome provided that amniotic fluid index remained > 5 cm and when amniotic fluid index fell to ≤ 5 cm there is increased incidence of fetal distress. Hence our advice is to do serial ultrasonographic measurements of the amniotic fluid index in all postterm pregnancies and any patient showed amniotic fluid index ≤ 5 cm should be referred for delivery.