PROSPECTIVE STUDY IN PREDICTING PREGNANCY OUTCOME USING YOLK SAC PARAMETERS IN FIRST TRIMESTER

Abstract

OBJECTIVE : Yolk sac is the first ultrasonographically visible extra embryonic structure within the gestational sac. In Early pregnancy, threatened and spontaneous abortions is the most common complication. As per some studies, enlarged or small yolk sac predicts poor pregnancy outcome. Whereas other studies, they conclude normal outcome. Thus, the purpose of this study is to study and evaluate the inner diameter and the shape of yolk sac in first trimester using transabdominal ultrasonography and to correlate it with pregnancy outcome.

MATERIALS AND METHODS : This study is a prospective one. The study is conducted in Institute of Obstetrics and Gynecology, Egmore, Chennai. Total of hundred pregnant antenatal mothers were chosen between the study period November 2017 to October 2018. Once selected they were divided into two groups of 8 to 10 weeks and 10 to 12 weeks. They underwent transabdominal ultrasound to see the size and characteristics of yolk sac, results recorded and patients are followed up till 20 weeks to see for pregnancy outcome like abortion or normal course.

RESULTS: In patients with normal outcome the mean diameter of yolk sac has been 4.35 mm. In patients with abortion as outcome, the mean yolk sac diameter has been ranging from 5.5 mm. Any deviation of more than 2 SD met with increased rates of spontaneous abortion. In this current study, about 88% of cases had abortion which were found to have abnormal size of the yolk sac

CONCLUSION : Yolk sac size and characteristics are important determinants of outcome of pregnancy. This should be monitored in early pregnancy to assess the outcome of pregnancy.
KEYWORDS:

Yolk sac size
Yolk sac characteristics
First trimester ultrasound
Pregnancy outcome
Abortion