Objective
To investigate the role of fetal abdominal circumference AC measured by ultrasound as an indicator of birth weight.

Methods
Measurements were done by ultrasound within one week of delivery in 1860 pregnant women. The purpose was to determine the relation between AC and birth weight.

Results
There is a linear relationship between AC and birthweight. No newborns with weight of more than 4000 gram was seen in cases with AC < 23 cm. The rate of macrosomia was 16.2% when fetal AC was between 35-35.9 cm and the birth weight was 3595 +/-250 g. The average birth weight was 3948 +/-265 g when AC was between 36-36.9 cm and the macrosomia rate was 49%. When AC was between 37-37.9 cm, the macrosomia rate was 86%. In the cases when AC was equal or bigger than 38 cm the macrosomia rate was 100%. In the newborns weighing between 4000-4500g, the cesarean section rate was 73% and in newborns more than 4500g the cesarean was 97%.

Conclusion
There is a linear and significant relation between fetal AC and birth weight measured by ultrasound.