

SUMMARY AND CONCLUSION

The incidence of diabetes mellitus with pregnancy was increased nowadays. Poly-hydramnios is one of the commonest complication of gestational diabetes which occurs in approximately 15% of pregnant women suffering from Gestational diabetes mellitus

The aim of this work was to evaluate the relationship between the amniotic fluid glucose concentration and amniotic fluid volume in pregnancies complicated by diabetes and to compare it with that seen in normal pregnancies and diabetic pregnant not complicated by polyhydramnios.

This study was carried on 90 pregnant women. The patient were taken from Kafr El-Sheikh hospitals in the period from March 2001 to June 2004 and delivery by c.s. was decided for various reasons.

They were divided into three equal groups. The first group (30 pregnant women) were insulin-treated diabetes with hydramnios, the second group (30 pregnant women) were insulin-treated diabetes without hydramnios and the third group (30 pregnant women) were a control group without diabetes mellitus or hydramnios. All women were at term and carried singleton fetuses without anomalies.

Amniotic fluid volume was assessed ultra-sonographically according to the amniotic fluid index. Amniocentesis was performed during cesarean section operation then the glucose concentration was assessed in the amniotic fluid sample.

In the present study, mean age of mothers in diabetics with hydramnios and diabetics without hydramnios groups are statistically significantly higher than in control group

Meanwhile, the mean of gestational age in diabetics with hydramnios and diabetics without hydramnios groups are statistically significantly lower than in control group.

Moreover, the mean of birth weight in diabetics with hydramnios and diabetics without hydramnios groups are statistically significantly higher than in control group.

Also, the mean of the fasting blood glucose concentration in diabetics with hydramnios and diabetics without hydramnios groups are statistically significantly higher than in control group

Moreover, the mean of amniotic fluid glucose concentration in diabetics with hydramnios group is statistically significantly higher than in diabetics without hydramnios and control groups.

Also, the mean of the amniotic fluid index in diabetics with hydramnios group is statistically significantly higher than in diabetics without hydramnios and control groups.

The present study cleared that, there is a positive correlation between amniotic fluid index and amniotic fluid glucose concentration in the diabetics with hydramnios group where the amniotic fluid index increases as the amniotic fluid glucose concentration increases but this relationship does not hold among diabetics without hydramnios and control groups.

Also, there is a positive correlation between amniotic fluid index and fasting blood glucose concentration in the diabetics with hydramnios group where the amniotic fluid index increases as the fasting blood glucose concentration increases but this relationship does not hold among diabetics without hydramnios and control groups .

In conclusion, there is a positive correlation between amniotic fluid index and amniotic fluid glucose concentration and blood glucose level in diabetic pregnancies complicated by polyhydramnios. So that the amniotic fluid index increases as the blood glucose level and amniotic fluid glucose concentration increased.

So, we recommended that further studies should be done to study the effect of early diagnosis and management of gestational diabetes mellitus complicated by polyhydramnios aiming to reduce pregnancy complications, perinatal mortality and morbidity.