

## RESULTS

This study included 90 pregnant women at full term. 30 of them were diabetic with hydramnios, 30 diabetic without hydramnios and 30 normal pregnant women.

\*The mean maternal age ranged between (18 – 36 years).

\*The mean maternal weight ranged between (71 – 106 kg).

\*The mean fetal birth weight ranged between (2750 -4250 gm).

For every case the following had been done:

- 1) fasting blood glucose level.
- 2) Abdominal ultrasound to measure the amniotic fluid index.
- 3) Amniocentesis to take amniotic fluid sample to estimate the amniotic fluid glucose concentration.

**Table (10) Distribution of maternal Age, gestational age, maternal weight and fetal birth weight in diabetic with hydramnios and control groups.**

	$\bar{x}$ Diabetic with hydramnios group	$\bar{x}$ Control group	p.v.
Maternal Age (yrs)	28.17	24.53	3.47*
Gestational age(wk)	37.87	38.87	3.13*
Maternal weight (Kg)	87.60	84.07	1.71
Birth weight (gm)	3480.00	3221.67	3.09*

\* Statistically significant ( $P < 0.05$ ).

As shown in this table maternal age, gestational age and fetal birth weight are statistically significantly higher in diabetics with hydramnios than in control group.

**Table (11) Distribution of maternal Age, gestational age, maternal weight and fetal birth weight in diabetic without hydramnios and control groups.**

	$\bar{x}$ - Diabetic without Hydramnios group	$\bar{x}$ - Control group	p.v.
Maternal Age (yrs)	27.13	24.53	2.52*
Gestational age(wk)	38.07	38.87	2.42*
Maternal weight (Kg)	88.33	84.07	2.21*
Birth weight (gm)	3460.00	3221.67	2.88*

As shown in this table maternal age, gestational age and fetal birth weight are statistically significantly higher in diabetics without hydramnios than in control group.

**Table (12) Blood glucose level, amniotic fluid glucose concentration and amniotic fluid index in diabetic with hydramnios and control groups.**

	$\bar{x}$ - Diabetic with hydramnios group	$\bar{x}$ - Control group	p.v.
Blood glucose level	89.00	74.47	7.77*
Amniotic fluid glucose	40.67	20.17	9.28*
Amniotic fluid index	20.63	12.33	11.07*

As shown in this table blood glucose levels, amniotic fluid glucose concentration and amniotic fluid index are statistically significantly higher in Diabetics with hydramnios than in control group.

**Table (13) Blood glucose level, amniotic fluid glucose concentration and amniotic fluid index in diabetic without hydramnios and control groups.**

	$\bar{x}$ Diabetic without hydramnios group	$\bar{x}$ Control group	p.v.
Blood glucose level	85.90	74.47	8.28*
Amniotic fluid glucose	21.43	20.17	1.52
Amniotic fluid index	13.17	12.33	1.62

As shown in this table blood glucose level is statistically significantly higher in Diabetics without hydramnios than in control group while amniotic fluid glucose concentration and amniotic fluid index showed no statistically significant differences between Diabetic without hydramnios and control groups.

**Table (14) Relation between amniotic fluid index and amniotic fluid glucose concentration in the three groups.**

	Amniotic fluid index (cm)	Amniotic fluid glucose concentration (mg/dl)	r	P
Diabetic with hydramnios group	20.63	40.67	0.95	0.05
Diabetic without hydramnios group	13.17	21.43	0.09	0.05
Control group	12.33	20.17	0.088	0.05

As shown in this table amniotic fluid index and amniotic fluid glucose concentration in diabetics with hydramnios is higher than those in diabetic without hydramnios and control groups. The difference is statistically significant.

**Figure (7): Relation between amniotic fluid glucose concentration and amniotic fluid index in the three groups.**

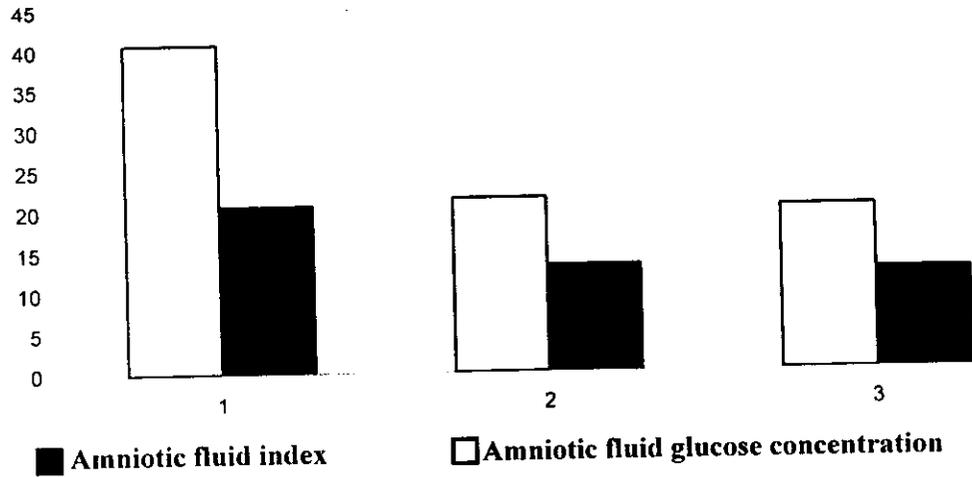


Figure (7) shows that the amniotic fluid index increases as the amniotic fluid glucose concentration increased in diabetic with hydramnios group.

**Figure (8): Correlation between amniotic fluid glucose concentration and amniotic fluid index in diabetic with hydramnios group.**

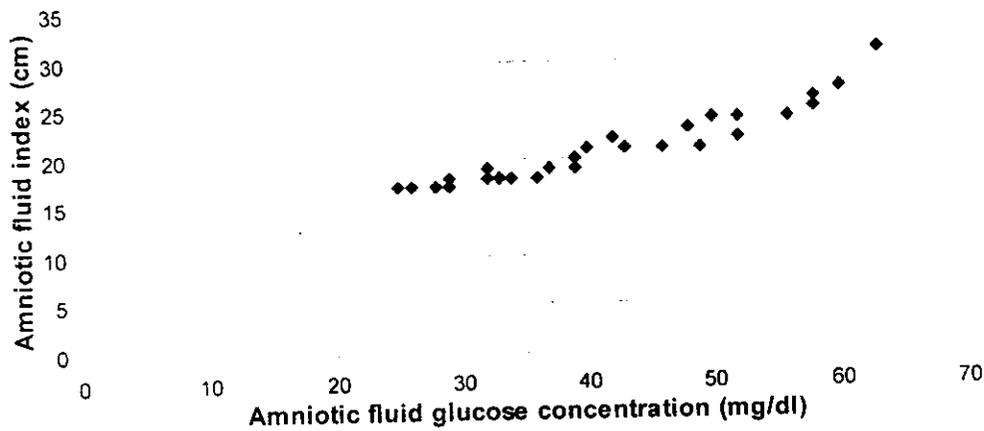


Figure (8) shows that the amniotic fluid index increases as the amniotic fluid glucose concentration increased (+ ve correlation).

**Figure (9): Correlation between amniotic fluid glucose concentration and amniotic fluid index in diabetic without hydramnios group.**

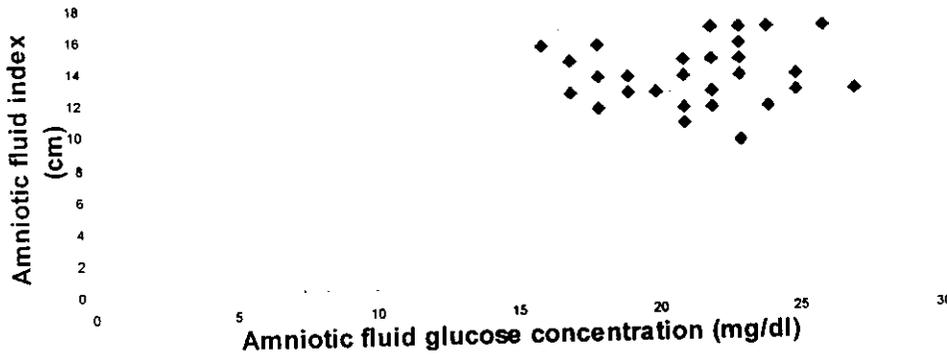


Figure (9) shows that the amniotic fluid index does not increase as the amniotic fluid glucose concentration increased (no correlation).

**Figure (10): Correlation between amniotic fluid glucose concentration and amniotic fluid index in control group.**

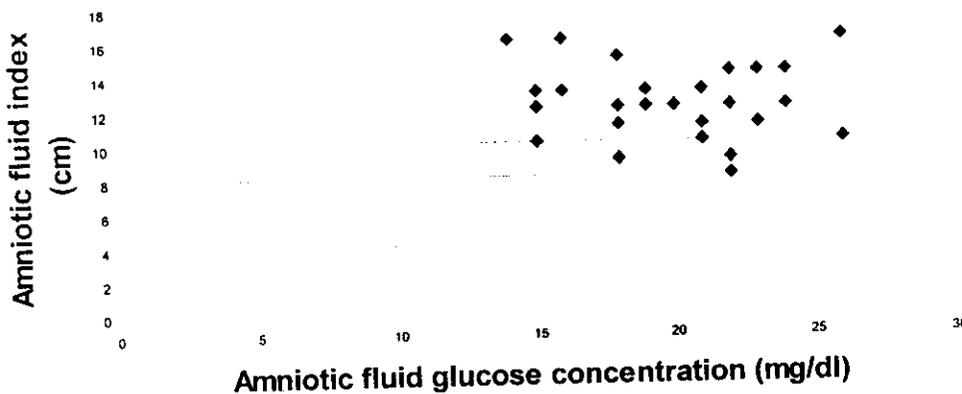


Figure (10) shows that the amniotic fluid index does not increase as the amniotic fluid glucose concentration increased (no correlation).

Analysis of covariance confirmed that the regression line were significantly different ( $P = 0.05$ ) indicating that the relationship between amniotic fluid glucose concentration and amniotic fluid index differed according to diabetic status.

**Table (15) Relation between fasting blood glucose concentration and amniotic fluid index in the three groups.**

	Amniotic fluid index (cm)	Fasting blood glucose concentration (mg/dl)	r	P
Diabetic with hydramnios group	20.63	89.00	0.85	0.05
Diabetic with hydramnios group	13.17	85.90	0.27	0.05
Control group	12.33	74.47	0.12	0.05

As shown in this table amniotic fluid index and fasting blood glucose concentration in diabetics with hydramnios group is higher than those in diabetic without hydramnios and control groups. The difference is statistically significant.

**Figure (11): Relation between fasting blood glucose concentration and amniotic fluid index in the three groups.**



Figure (11) shows that the amniotic fluid index increases as the fasting blood glucose concentration increased in diabetic with hydramnios group.

**Figure (12): Correlation between fasting blood glucose concentration and amniotic fluid index in diabetic with hydramnios group.**

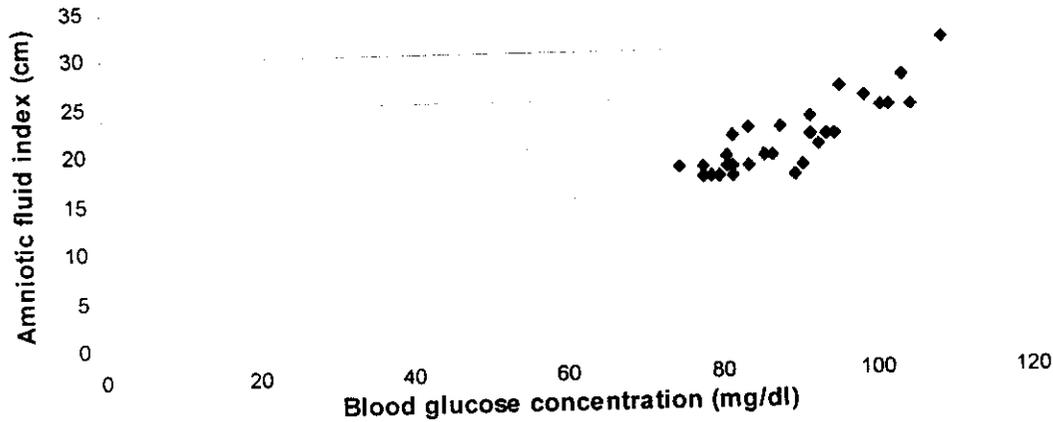


Figure (12) shows that the amniotic fluid index increases as the fasting blood glucose concentration increased (+ ve correlation).

**Figure (13): Correlation between fasting blood glucose concentration and amniotic fluid index in diabetic without hydramnios group.**

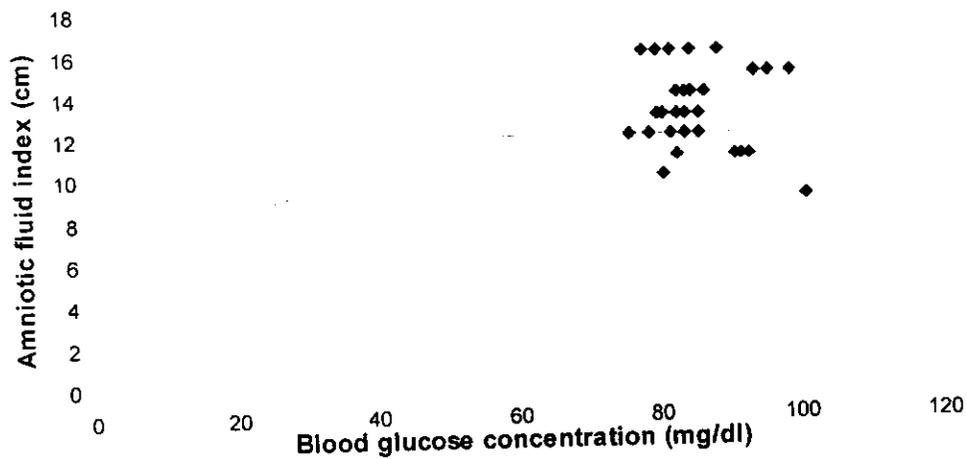


Figure (13) shows that the amniotic fluid index does not increase as the fasting blood glucose concentration increased (no correlation).

**Figure (14): Correlation between fasting blood glucose concentration and amniotic fluid index in control group.**

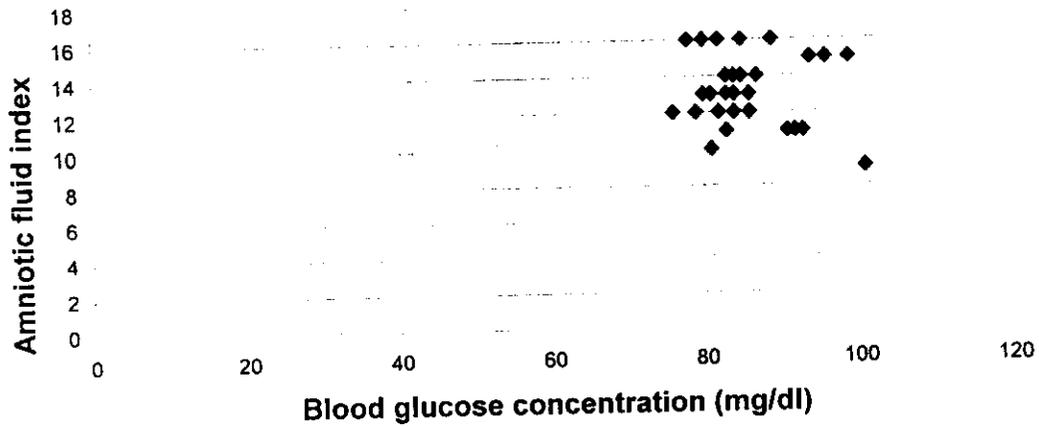


Figure (14) shows that the amniotic fluid index does not increase as the fasting blood glucose concentration increased (no correlation).