RESULTS

RESULTS

In this work, there were a total of 500 successive, pregnant women attending the antenatal clinic at El-Fayoum Hospital between 28-32 weeks of pregnancy.

In one hundred and seventy-four women (34.8%), the random blood glucose levels were above the upper limits of normal i.e 4.0 mmol (88.0 mg%) for women who had their last meal more than 2 hours before the test and 5.4 mmol (97 mg%) for those whose meals were 2 hours, or less, before the test, and were thus considered positive. These women were given a 75 gm of glucose as an oral glucose tolerance test. Forty-nine of them (9.8%) showed abnormal 2 hours post-prandial, while 125 (25%) were negative. The 49 with high 2 hours post-prandial blood glucose level were further subjected to a full 100 gm oral glucose tolerance test. Nineteen women (3.8% of total women) were found to be frankly diabetic. The other thirty (6% of total women) had impaired glucose tolerance. So, the pick up of diabetes by this screening method is 3.8%. **Figure (1)**.

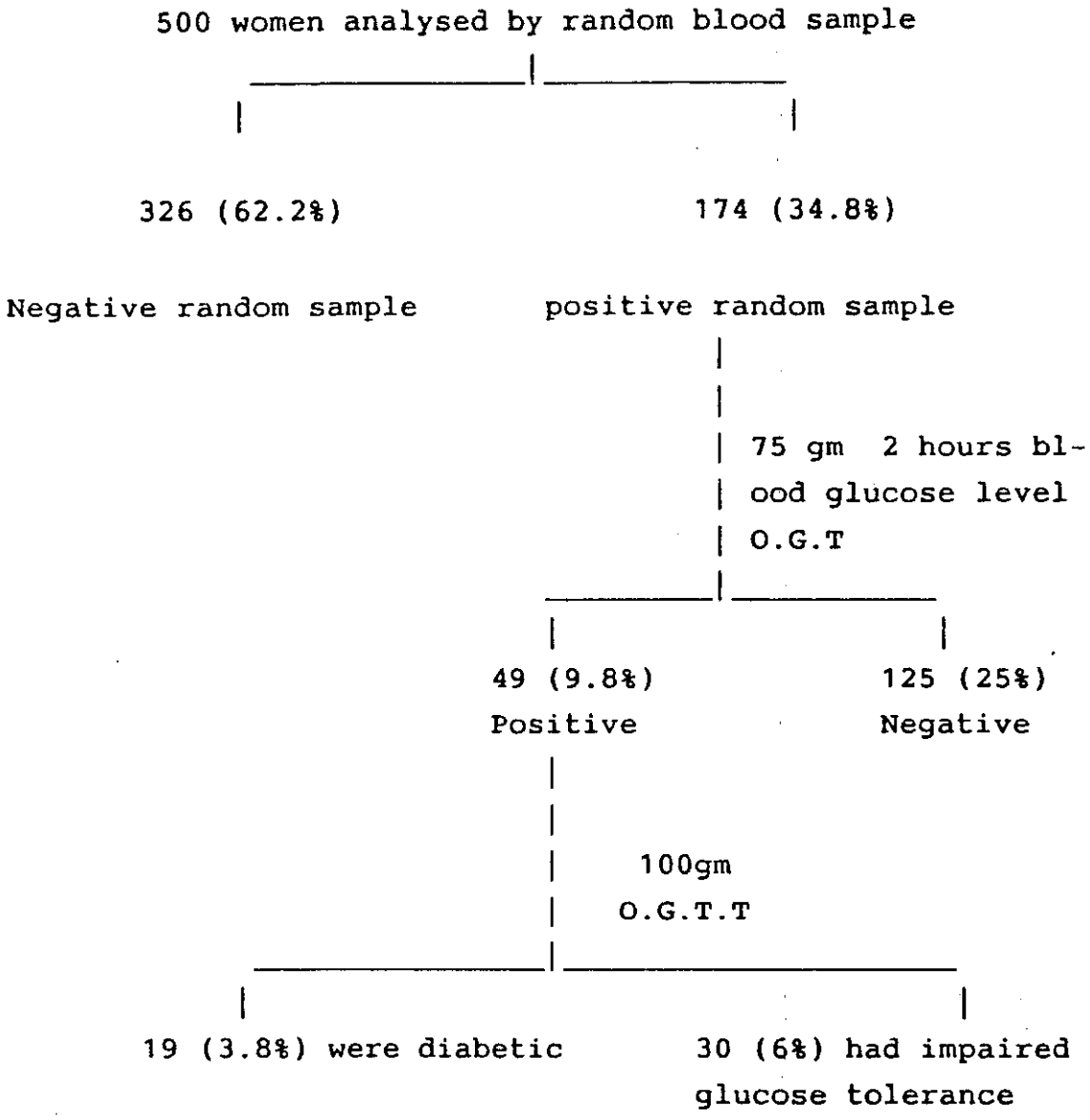
500 women analysed by random blood sample
326 (62.2%)
174 (34.8%)
Negative random sample
positive random sample
75 gm 2 hours blood glucose level O.G.T
49 (9.8%)
Positive
125 (25%)
Negative
100gm O.G.T.T
19 (3.8%) were diabetic
30 (6%) had impaired glucose tolerance

Figure (1)

PATIENTS CHARACTERISTICS

Table 1. shows the distribution of age among the 500 women studied

Age groups (years)	Number	%
16 - 20	118	(23. 6%)
21 - 25	106	(21. 2%)
26 - 30	112	(22. 4%)
31 - 35	139	(27. 8%)
36 - 40	21	(4 . 2%)
41 - 45	4	(0 . 8%)

Table 2. shows the distribution of parity among the 500 women studied.

Parity		Number	%
Primipara		67	(13.4%)
Para 1 - 4:		307	(61.4%)
	P1	74	(14.8%)
	P2	64	(12.8%)
	P3	92	(18.4%)
	P4	77	(15.4%)
Para	5:	126	(25.6%)
	P5	46	(9.2%)
	P6	21	(4.2%)
	P7	17	(3.4%)
	P8	11	(2.2%)
	P9	10	(2%)
	P10	8	(1.6%)
	P11	7	(1.4%)
	P12	3	(.6%)
	P13	2	(.4%)
	P14	-	
	P15	1	(.2%)

Table 3. shows the distribution of risk factors among the 500 pregnant females screened.

Risk factors	No	%
Consanguineous marriage	159	31.8%
Age more than 35y	25	5.0%
Weight more than ideal	82	16.4%
Parity 5 or more	126	25.2%
Family history of diabetes	142	28.4%
Fetal macrosomia	85	17.0%
Preterm labor	63	12.6%
Fetal loses	126	25.2%
Congenital malformation	13	2.6%
Hypertension	16	3.2%
Hydramnios	42	8.4%
Monilial Vulvovaginitis	98	19.6%
Glycosuria	77	15.4%

Table 4. shows the result of screening diabetes mellitus by random blood glucose

Results of screening	No	%
Normal	451	90.2%
Impaired glucose tolerance	30	6.0%
Diabetic	19	3.8%

Table 5 . shows the range and mean blood glucose levels in different groups (ml/100ml) by random sample.

Group R.F	Normal	impaired glucose tolerance	Diabetic
Without R.F			
Number	23	2	—
Range	50-150mg %	90-190 mg %	—
Mean ±SD	76.25+12.82	90.42+7.93	—
With R.F			
Number	428	28	19
Range	48 - 180mg%	92 - 205 mg%	90 - 298mg%
Mean±SD	78.93±1	119.38±30.6	144.05±56.19

R.F = Risk factor

Table 6 . shows the risk factors for diabetes mellitus in normal and impaired glucose tolerance groups (I.G.T)

Risk Factor	Normal		I.G.T	
	No	%	No	%
Consanguineous marriage	131	29.4%	31	43.0 %
Age more than 35y	9	1.99%	10	33.33%*
Weight more than ideal	75	16.63%	5	16.67%
Parity 5 or more	105	23.28%	13	43.33%
Family history of diabetes	28	6.2%	10	33.33%*
Fetal macrosamia	68	15.07%	11	36.66%*
Preterm labor	48	10.64%	9	30.0 %*
Fetal loses	104	23.05%	14	46.66%*
Congenital malformation	9	1.99%	2	6.66%
Hypertention	11	2.43%	4	13.33%
Hydramnios	31	6.81%	5	16.66%
Monilial- vulvovaginitis	76	16.85%	14	46.66%*
Glycosuria	65	14.41%	7	23.33%
Total	451		30	

*=P.value <.05

Table 6. Shows that there is significant increase in the number of women with impaired glucose tolerance (I.G.T) in the group of women with age more than 35 years , women with a positive family history of diabetes mellitus, fetal macrosomia, preterm labor, fetal loses and monilial- vulvovaginitis.

There was no statistically significant difference with other risk factors.

Table 7 . shows the risk factors for diabetes mellitus in normal and diabetic groups

Risk Factors	Normal		Diabetic	
	No	%	No	%
Consanguineous marriage	131	29.40%	15	78.00%*
Age more than 35 y	9	1.99%	6	31.57%*
Weight more than ideal	75	16.63%	2	10.53%
Parity 5 or more	105	23.28%	8	42.10%
Family history of diabetes	28	6.20%	4	21.50%
Fetal macrosomia	68	15.07%	6	31.57%
Preterm labor	48	10.64%	6	31.57%
Fetal loses	104	23.05%	8	42.10%
Congenital malformations	9	1.99%	2	10.53%
Hypertension	11	2.43%	1	5.26%
Hydramnios	31	6.87%	6	31.57%*
Monilial- vulvovaginitis	76	16.85%	8	42.10%*
Glycosuria	65	14.40%	5	26.31%

*=P.value<.05

Table 7. shows that there is significant increase in the occurrance of diabetes with consanguineous marriage group, with age group 35 years or more, in the monilial vulvovaginitis group . There was no statistically significant difference with other risk factors.

Table 8 : shows the incidence of normal and impaired glucose tolerance (I.G.T) with combination of risk factors

Risk	Normal		Impaired G.T	
Factor	No	%	No	%
No	23	5.09%	2	6.66%
One	323	71.61%	2	6.66%
Two	41	9.09%	4	13.33%
Three	30	6.65%	9	30.00%*
Four	17	3.76%	4	13.33%
Five	15	3.32%	2	6.66%
Six	9	1.99%	3	10.00%
Seven	5	1.10%	2	6.66%
Eight	3	.66%	2	6.66%

*=P value < 0.05 = significant

Table 8. shows that there is an increase in the occurrance of I.G.T with combination of three risk factors

As most of the population included in this study presented with one risk factor , so the presence of one risk factor does not affect the increase of occurrence of I.G.T., and also, the presence of two risk factors causes as increase in the percentage of occurrance of I.G.T, but the increase was not significant statistically (P>0.05).

Table 9 : shows the incidence of normal and diabetes with combination of risk factors

Risk	Normal		Diabete	
Factors	No	%	No	%
No	23	5.09%	0	0.00%*
One	323	71.61%	2	10.52%*
Two	41	9.09%	4	21.05%
Three	30	6.65%	3	15.79%
Four	17	3.76%	4	21.05%
Five	15	3.32%	3	15.79%
Six	9	1.99%	1	5.26%
Seven	5	1.1%	0	0.00%
Eight	3	.66%	2	10.50%

*=Pvalue<.05

Table 9. Shows that none of the diabetic patients presented without risk factors. There are also significant decrease in occurance of diabetes with only one risk factor as the incidence is only 2 (10.52%) while it is 323 (71.61%) in normal group.

There is an increase in percentage of occurrance of diabetes with combination of two or more than one risk factor. but this difference is not statistically significant (P>0.05).

Table 10. Distribution of risk factors among different groups . I.G.T = Impaired glucose tolerance.

Group	Single Factor		More than one risk actor			
	No	%	No	%	Total	Pvalue
Normal	323	71.61%	105	24.53%	428	<0.05
I.G.T.	5	16.66%	23	82.17%	28	<0.05
Diabetic	5	26.31%	14	73.00%	19	<0.05
Total	333	66.60%	142	28.40%	475	

Table 10. Shows that in the normal group a single risk factor is present in 333 women (71.6%), while multiple risk factors are present in 105 (24.5%). This difference is statistically significant (P value <0.05). In the impaired glucose tolerance group a single risk factor is present in 5 women (16.66%) and multiple risk factors in 33 (82.17%) with significant increase in the number of impaired glucose tolerance in presence of multiple risk factors (P value <0.05).In the diabetic group, a single factor is present in 5 women (26.3%) and multiple risk factors in 14 (73%). (P value was <0.05). with significant increase in diabetes among group with multiple risk factors than with one risk factor.