RESULTS

This work has been done on 60 women all of them were suffering from anovulatory infertility due to PCOD. Ten women escaped and were not included in the study. The clinical data and hormonal profile of all groups were presented in Table [1(A, B) and 2).

The age of patients of studied first group ranged between 24-35 years with a mean value of 28.5±3.5 years, while that of the second group, ranged between 23-33 years with a mean value of 28.5±3.5 years. The age of third group ranged between 23-34 years with the mean value of 29.0±2.6 years. There was no significant difference between the 3 studied groups regarding to the age (Table 1). $P > 0.05$

Regarding the type and duration of infertility (Table 1), the first group included 13 patients (76%) suffering from primary infertility ranged between 2-7 years with a mean value of 3.6±1.6 years and the other 4 patients (24%) were suffering from secondary infertility ranged between 2-5 years with a mean value of 4.2±1.0 years. The second group included 15 patients (89%) were suffering from primary infertility ranged 2-7 years with a mean value of 4.5±1.5 years and 2 patient (11%) suffering from secondary infertility ranged between 0-2

years with a mean value of 2.7±1.5 years. The third group include 13 patients (81%) suffering from primary infertility ranged between 2-7 years with a mean value of 3.6±1.3 years, while the other 3 (9%) patients were suffering from secondary infertility ranged between 2-5 years with a mean value of 3.8±1.1 years. There was no statistically significant difference in the studied groups.

Table (3) shows mature follicular size at HCG day where: In group I, the follicular size ranged between 17-20 mm with a mean value of 17.65±0.86. In group II, the follicular size ranged between 18-21 mm with a mean value of 18.29±1.16. In group III, the follicular size ranged between 17-20 mm with a mean value of 18.12±0.72 at HCG day. There was no significant difference between the studied groups regarding the follicular size at HCG day.

Table (4) shows the distribution of the studied groups as regards the HCG day, where, in first group, 5 patients (29.4%) reached to the mature follicle size ≥ 18^+ mm at twelfth day of the cycle, another 5 patients (29.4%) reached the mature follicle size at thirteenth day of the cycle and 7 patients (41.2%) reached the mature follicle size at fourteenth day.

In second group, 4 patients (23.5%) reached the mature follicle size ≥ 18^+ mm at twelfth day of the cycle, the anther 7

patients (41.2%) reached the mature follicle size at thirteenth day of the cycle and 6 patients (35.3%) reached the mature follicle size at fourteenth day. In the third group, 4 patient (25.0%) reached the mature follicle size ≥ 18^{+} mm at twelfth day of the cycle, 5 patients (31.2%) reached the mature follicle size at thirteenth day of the cycle and 7 patients (43.8%) reached the mature follicle size at fourteenth day.

Regarding the number of mature follicle at HCG day (Table 5), in first group, we were able to clarify one mature follicle in 5 patients (29.41%), two mature follicle in 8 patients (47.06%) and 3 follicle in 4 patients (23.53%) at the HCG day. While in the second group, we were able to clarify one mature follicle in 4 patients (23.53%), two mature follicles in 7 patients (41.18%) and 3 mature follicles in 6 patients (35.29%) at the HCG day. For the third group, we were able to clarify one mature follicle in 6 patients (37.5%), two mature follicles in 8 patients (50.0%) and 3 mature follicles in 2 patients (12.50%) at HCG day. There was no significant difference between the studied groups.

Regarding to ovulation response Table (6) shows, in the first protocol of ovulation induction, the ovulation response was demonstrated in 12 patients (70.59%), while in the second protocol of ovulation induction, the ovulation response was demonstrated in 14 patients (82.35%) and in the third protocol

of ovulation induction, the ovulation response was demonstrated in 11 patients (68.75%).

As for occurrence of pregnancy Table (7) shows, in the first protocol of ovulation induction, 3 patients (17.6%) got pregnant, only one patient (5.9%) completed her pregnancy and 2 patients (11.8%) aborted before 12 weeks of pregnancy.

For the second group and the third group of ovulation induction, only 2 patients (11.8%, 12.5%) got pregnant in each group. The two patients completed their pregnancy after the first trimester. There was no statistical significant difference between the studied groups.

Table (1): Clinical Characteristics of the patients studied.

Item	Croup I (17 patients)		Croup II (17 patients)		Group III (16 patients)	
	Range	$\bar{x} \pm$ S.D	Range	$\bar{x} \pm$ S.D	Range	$\bar{x} \pm$ S.D
Age	24 - 35	28.4 ± 3.2	23 - 34	28.5 ± 3.5	23 - 34	29.0 ± 2.6
Duration of infertility (years)						
Primary	2 - 7	3.6 ± 1.6	2 - 7	4.5 ± 1.5	2 - 7	3.6 ± 1.3
Secondary	2 - 5	4.3 ± 1.0	0 -2	3.7 ± 1.5	2 - 5	3.8 ± 1.1

$P > 0.05$

Table (1 A): Age distribution in studied group.

Age / St. gps	Rang	x	S.D.	Test of ignificance		
				gps	t	p
Group I	24 - 35	28.4	± 3.2	I * II	0.096	> 0.05
Group II	23 - 34	28.5	± 3.5	II * III	0.959	> 0.05
Group III	23 - 34	29.0	± 2.6	I * III	0.616	> 0.05

There is no age difference between the studied groups.

Table (1 B): Comparison between studied groups according to type and duration of infertility.

Duration & type of inf.	Primary inf.		Secondary Inf.		t	P
St. gps	Range	Mean ± S.D	R	Mean ± S.D		
Group I	2 - 7	3.6 ± 1.6	2 -5	4.3 ± 1.0	0.745	> 0.05
Group II	2 - 7	4.5 ± 1.5	0 - 2	3.7 ± 1.5	0.873	> 0.05
Group III	2 -7	3.6 ± 1.3	2 - 5	3.8 ± 1.1	0.298	> 0.05

Table (2): Base line of hormonal profile of the patient studied.

Item	Croup I (17 patients)		Croup II (17 patients)		Group III (16 patients)	
	Range	x ± S.D	Range	x ± S.D	Range	x ± S.D
Serum LH	0.22 - 25.0 mIu/mL	8.90 ± 4.8	0.39 - 42.40 mIu/mL	13.82 ± 12.3	0.79 - 25.90 mIu/mL	11.39 ± 8.32
Serum FSH	0.84 - 10.80 mIu/mL	2.77 ± 2.59	0.97 - 9.77 mIu/mL	2.38 ± 2.21	0.89 - 7.93 mIu/mL	2.71 ± 2.00
S. androst-enedione	0.80 - 46.40 ng/mL	20.76 ± 2.59	1.10 - 76.50 ng/mL	28.45±23.34	1.50 - 67.70 ng/mL	26.46±22.53

Table (3): Comparison between the studied groups regarding * mature follicular size at HCG day.

Mature follicular size (mm) / St. gps	Range	$\bar{x}$	± S.D.	Test of significance		
				gps	t	p
Group I	17.0 - 20.0	17.65	± 0.86	I * II	1.846	> 0.05
Group II	18.0 - 21.0	18.29	± 1.16	II * III	0.499	> 0.05
Group III	17.0 - 21.0	18.12	± 0.72	I * III	1.724	> 0.05

Mature follicular size (17-21 mm)

Table (4): Distribution of studied groups according to HCG day.

HCG day / St. gps	12th day		13th day		14th day		Test of significance		
	No	%	No	%	No	%	gps.	Z	P
Group I	5	29.4	5	29.4	7	41.2	I * II	0.389	> 0.05
Group II	4	23.5	7	41.2	6	35.3	II * III	0.092	> 0.05
Group III	4	25.0	5	31.2	7	43.8	I * III	0.284	> 0.05

There was no statistical significant difference between the studied groups.

Table (5): Distribution of the studied groups according to number of mature follicles at HCG day.

No. of mature follicle / St. gps	One		Two		Three		Total	
	No	%	No	%	No	%	No	%
Group I	5	29.41	8	47.06	4	23.53	17	100.0
Group II	4	23.53	7	41.18	6	35.29	17	100.0
Group III	6	37.50	8	50.0	2	12.50	16	100.0
Total	15	30.00	23	46.0	12	24.0	50	100.0

Adjusted $X^2 = 2.472$ $P > 0.05$ (N.S.)

Table (6): Distribution of the studied groups according to ovulation response.

Ovulation / St. gps	Ovulation		Non-ovulation		Total		Tests of significance		
	No	%	No	%	No	%	gps	Z	P
Group I	12	70.59	5	29.11	17	100.0	I * II	0.809	> 0.05
Group II	14	82.35	3	17.65	17	100.0	II * III	0.911	> 0.05
Groups III	11	68.75	5	31.46	16	100.0	I * III	0.115	> 0.05

There was no statistical significant difference between the studied groups.

Table (7): Distribution of studied groups according to occurance of pregnancy.

Outcome / St. gps	Responders		Non-Responders		Total		Tests of significant		
	No	%	No	%	No	%	gps	Z	P
Group I	3	17.6	14	82.4	17	100.0	I * II	0.484	> 0.05
Group II	2	11.8	15	88.2	17	100.0	II * III	0.065	> 0.05
Groups III	2	12.5	14	87.5	16	100.0	I * III	0.412	> 0.05

* Responders include pregnant and aborted women.

There was no statistical significant difference between studied groups.

Fig.(1):Mature Follicular size at HCG day among the studied groups.

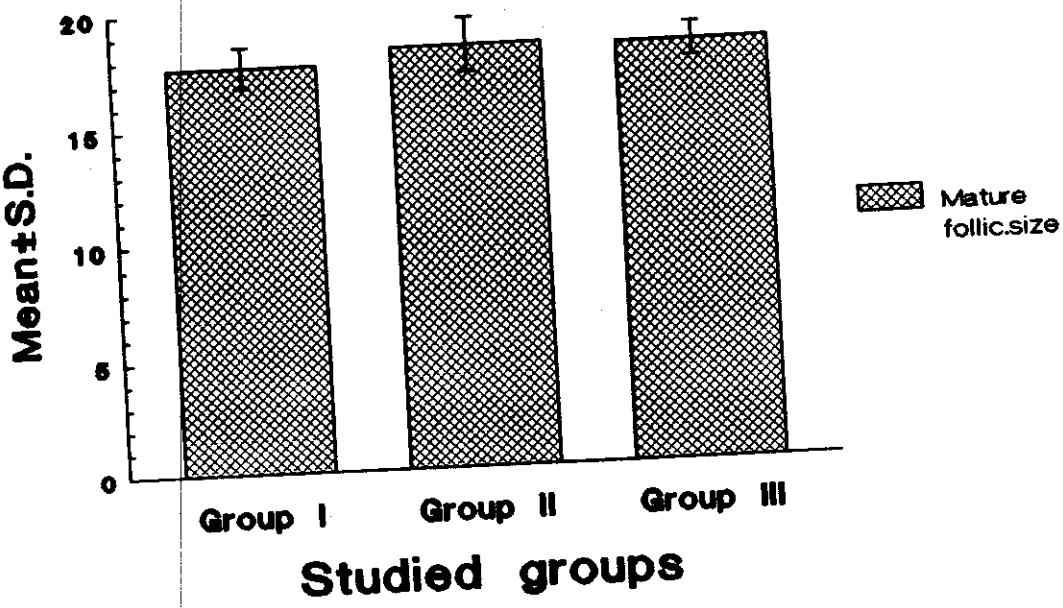
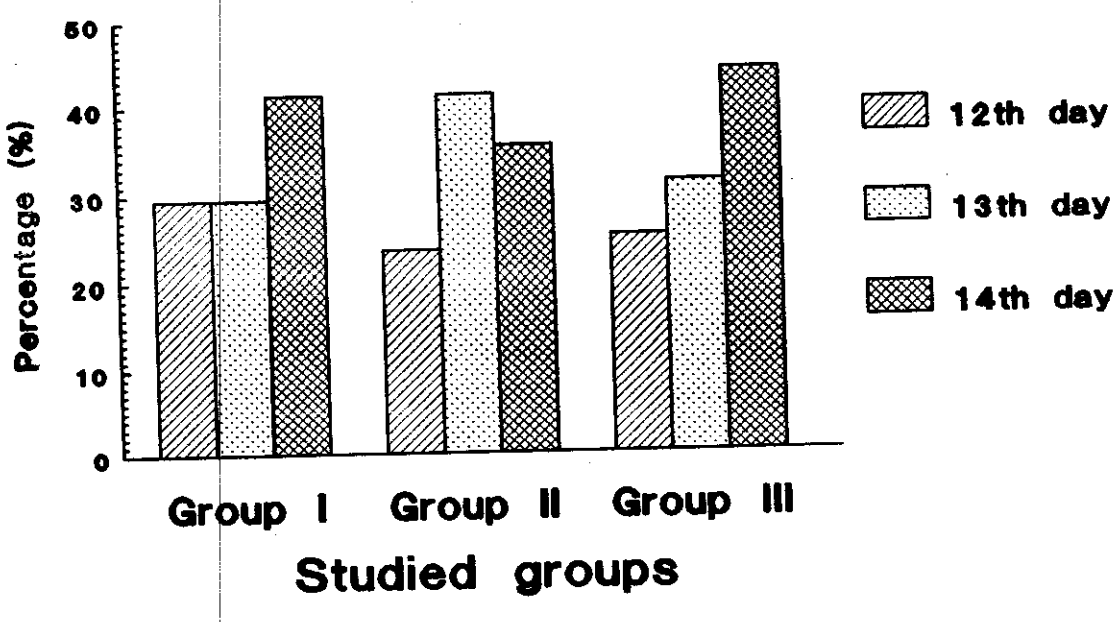


Fig.(2): Distribution of the studied groups according to HCG day.



Fig(3): Distribution of the studied groups according to mature follicles at HCG day.

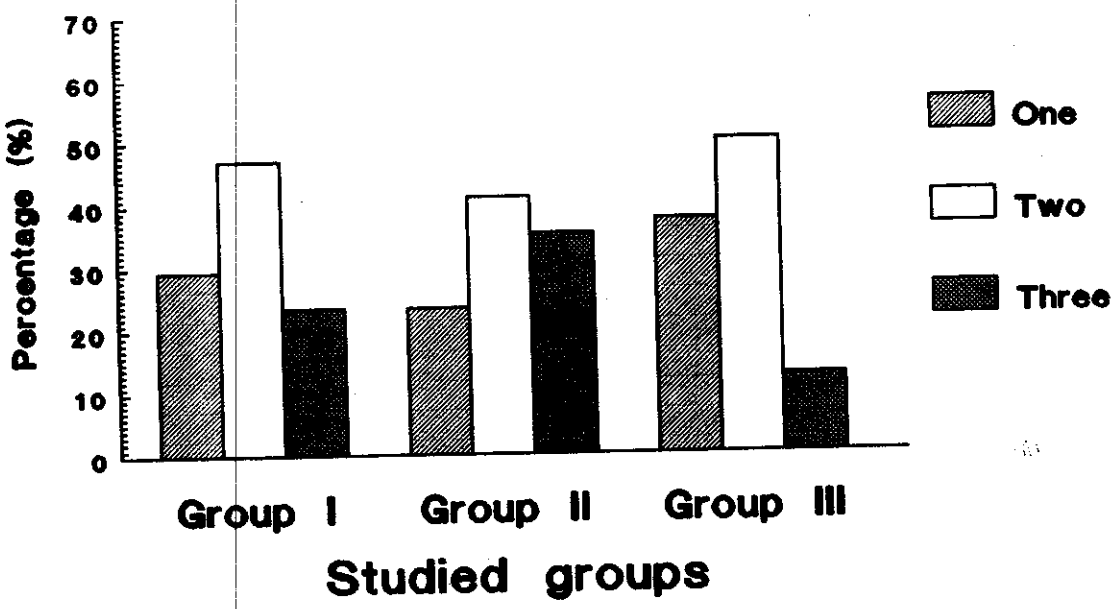
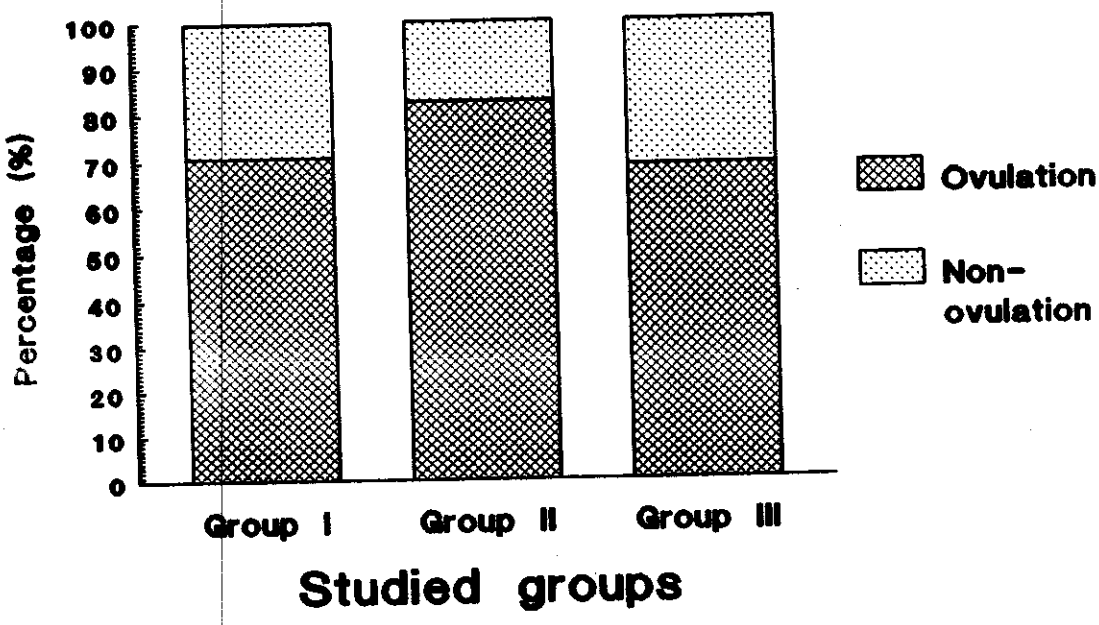
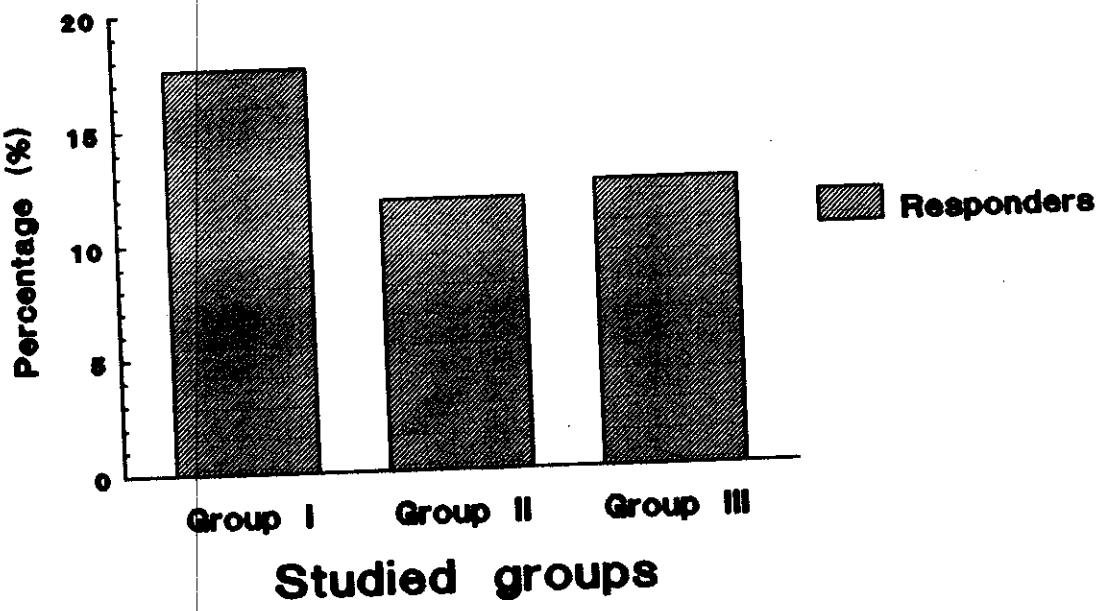


Fig.(4):Ovulation response among the studied groups.



Fig(5): Occurrence of pregnancy among the studied groups.



Transvaginal sonography showing the characteristic pattern of polycystic ovary.

T.V.S endomaterial thickness in ovulatory cycle.

T.V. folliculometry dominent follicle at (10th) menstrual day.

T.V Folliculometry dominent follicle at (11th) menstrual day.

T.V Folliculometry dominent follicle at (12th) menstrual day.

T.V Folliculometry dominent follicle at (13th) menstrual day.

T.V Folliculometry dominent follicle at (14th) menstrual day.

T.V Folliculometry mature pre-ovulatory follicle.