RESULTS

A total of 60 women were included in this study, all of them have PCOS according to Rotterdam criteria, and all of them have clinical, hormonal and ultrasound evaluation of the endometrium and the ovaries.

Thirty-eight PCOS patients (63.3%) had proliferative endometrium and 22 (36.7%) had endometrial hyperplasia. Five of the latter (8.3%) had cytologic atypia.Endometrial thickness less than 7.2mm or intermenstrual interval less than 3.01 months (corresponding to more than four menstrual periods yearly) was associated with proliferative endometrium only. The endometrial thickness correlated positively with endometrial hyperplasia ($P = 0.018$) and, together with the average intermenstrual interval, were significant predictors of endometrial hyperplasia ($P < 0.001$).

Table (5): Results of endometrial biopsy :

Study group	No	%
Proliferative endometrium	38	63.3
Endometrial hyperplasia :	22	36.7
□ Simple	13	21.6
□ Complex	4	6.6
□ Cytologic atypia	5	8.3
Total	60	100

Table (5) shows that twenty two (36.7%) cases showed endometrial hyperplasia, only 5 cases (8.3%) have endometrial hyperplasia with cytologic atypia.

Table (6): Clinical characteristics of both groups:

Study group / Variable	Proliferative Endometrium (n = 38) $\overline{X}$ ± SD	Endometrial Hyperplasia (n = 22) $\overline{X}$ ± SD	P
Age	30.5 ± 6.7	33.2 ± 5.1	> 0.05
Age of Menarche	11.8 ± 1.3	12.3 ± 1.4	> 0.05
Menstrual frequency/year	3.6 ± 0.8	1.7 ± 0.4	< 0.001
Intermenstrual interval(month)	3.01 ± 0.4 (median=3)	10.5 ± 2.2 (median=7.9)	< 0.001
Menstrual-biopsy interval(wk)	12.3 ± 2.8	35.9 ± 10.3	< 0.001
Body Mass Index (BMI)	32.6 ± 1.4	33.3 ± 1.8	>0.05
Ferriman-Gallwey score	8.7 ± 0.9	7.4 ± 0.9	>0.05
Systolic BP (mmHg)	125.4 ± 10.3	121.8 ± 8.4	> 0.05
Diastolic BP (mmHg)	82.9 ± 5.2	80.3 ± 3.2	>0.05
Endometrial thickness (mm)	7.2 ± 1.4 (median=7.1)	9.5 ± 1.6 (median=9)	< 0.001

Table (6) shows that there were a significant differences between both groups as regard menstrual frequency/year, intermenstrual interval, menstrual biopsy interval and endometrial thickness.

Table (7): Hormonal profiles of both groups:

Study group / Variable	Proliferative Endometrium (n = 38) ± SD $\bar{X}$	Endometrial Hyperplasia (N = 22) ± SD $\bar{X}$	P
LH	16.2 ± 1.2	13.6 ± 1.3	> 0.05
FSH	5.7 ± 0.4	5.8 ± 0.4	> 0.05
LH/FSH ratio	2.5 ± 0.2	2.3 ± 0.2	>0.05
Progesterone	1.5 ± 0.13	1.3 ± 0.06	> 0.05
Estradiol	230 ± 24.1	218 ± 29.2	>0.05
Testosterone	2.39 ± 0.2	2.2 ± 0.2	> 0.05
Androstenedione	8.3 ± 0.8	8.6± 0.99	>0.05
DHEAS	6.4 ± 0.5	5.6 ± 0.67	> 0.05
Fasting insulin	31.4± 0.8	32.75±0.06	>0.05
Fasting blood glucose	140± 5.8	145±5.9	> 0.05
Fasting glucose/insulir ratio	4.45	4.42	>0.05

Table (7) shows a statistically insignificant differences between the 2 groups as regards LH, FSH, LH/FSH ratio, progesterone, estradiol, testosterone, androstenedione, DHEAS, fasting insulin, fasting blood glucose or fasting glucose/insulin ratio

Table (8) : Predictors of Endometrial Hyperplasia

Independent variables	Odds ratio	95% Confidence interval	p
age	1.063	1.275, 0.887	0.522
Body mass index	0.972	1.080, 0.891	0.721
Endometrial thickness	1.568	1.997, 1.237	0.037*
Intermenstrual interval	1.323	1.672, 1.151	0.001*
Menses-biopsy interval	0.872	1.024, 0.812	0.463

* Significant results from stepwise logistic regression.

Table (8) shows that only endometrial thickness and intermenstrual interval were significant predictors of endometrial hyperplasia.

Fourteen subjects had more complex menstrual histories, reporting intermenstrual intervals of 2-3 months, as well as irregular, prolonged bleeding episodes of 2-8 weeks. Of these, two women with intermenstrual intervals of 3 months had endometrial hyperplasia. Most of the endometrial hyperplasia occurred in women with fewer than three episodes of menstrual flow per year (a corresponding interval between menses of 4 months or longer) on average.