## **RESULTS**

Table 1 shows the means, standard deviations and ranges of the clinical characteristics of the patients studied.

Table 1 clinical characteristics of the patients studied (n=30).

| Value                   | Range |       | X     | ±S.D. |
|-------------------------|-------|-------|-------|-------|
| Clinical                |       |       |       |       |
| characteristics         |       |       |       |       |
| Age (years)             | 18.0  | 38.0  | 26.3  | ±4.7  |
| Weight (Kgms)           | 45.0  | 84.0  | 65.6  | ±7.2  |
| Height (Cm)             | 145.0 | 164.0 | 154.1 | ±4.7  |
| B.M.I.*                 | 18.9  | 32.8  | 27.7  | ±3.4  |
| Duration of infertility | 1.0   | 11.0  | 5.2   | ±2.8  |

Table 2 shows the ovulatory response after ovarian unipolar electrocauterization of polycystic ovaries according to duration of infertility of the patients studied. There is statistically insignificant relation between the ovulatory response and the duration of infertility (P > 0.05).

**Table 2**: Ovulatory response to ovarian unipolar electrocauterization of PCO according to duration of infertility of the patients studied.

| Duration of    | < 5 years |       | 5 years or more |       | Total |       |
|----------------|-----------|-------|-----------------|-------|-------|-------|
| infertility    |           |       |                 |       |       | :     |
| Ovulation      | No.       | %     | No.             | %     | No.   | %     |
| response       |           |       |                 |       |       |       |
| Responders     | 11        | 73.3  | 9               | 60.0  | 20    | 66.7  |
| Non responders | 4         | 26.7  | 6               | 40.0  | 10    | 33.3  |
| Total          | 15        | 100.0 | 15              | 100.0 | 30    | 100.0 |

$$X^2 = 0.600$$

Table 3 Shows the ovulatory response after ovarian unipolar electrocauterization of polycystic ovaries according to the type of infertility of the patients studied. There is statistically significant relation between the ovulatory response and the type of infertility where, most of the responders are with primary infertility (P < 0.05).

**Table 3:** Ovulatory response to ovarian unipolar electrocauterization of PCO according to the type of infertility of the patients studied.

| Type of infertility | Primary |       | Secondary |       | Total |       |
|---------------------|---------|-------|-----------|-------|-------|-------|
| Ovulation           | No.     | %     | No.       | %     | No.   | %     |
| response            |         |       |           |       |       |       |
| Responders          | 17      | 77.3  | 3         | 37.5  | 20    | 66.7  |
| Non responders      | 5       | 22.7  | 5         | 62.5  | 10    | 33.3  |
| Total               | 22      | 100.0 | 8         | 100.0 | 30    | 100.0 |

$$X^2 = 4.176$$

Table 4 shows the prevalence of adhesion formation after laparoscopic ovarian unipolar electrocauterization of polycystic ovaries. Adhesions were found in 76.7% of the patients studied and were classified according to the American Fertility Society classification of adnexal adhesions as minimal, mild, moderate and severe.

**Table 4:** Degree of adhesion formation after ovarian unipolar electrocauterization of PCO.

| Degree               | No. | %     |
|----------------------|-----|-------|
| Adhesions            |     |       |
| * No adhesions       | 7   | 23.3  |
| * Minimal adhesions  | 16  | 53.3  |
| * Mild adhesions     | 5   | 16.7  |
| * Moderate adhesions | 2   | 6.7   |
| * Severe adhesions   | 0   | 0.0   |
| Total                | 30  | 100.0 |

Table 5 shows the means, standard deviations and ranges of AFS scores according to type of adhesions.

**Table 5:** Means, ±S.D.& range of AFS scores according to type 'of adhesions.

| AFS scores Type of adhesions | Range  |       | X     | ±S.D. |
|------------------------------|--------|-------|-------|-------|
| Minimal adhesions (n=16)     | 2.00   |       |       |       |
|                              | 2.00   | 5.00  | 3.06  | ±1.12 |
| Mild adhesions (n=5)         | 6.00   | 8.00  | 6.60  | ±0.89 |
| Moderate adhesions (n=2)     | 14.00  | 14.00 | 14.00 | ±0.00 |
| F                            | 105.6  |       |       |       |
| Р                            | < 0.01 |       |       | ·     |

Table 6 shows the means, standard deviations and ranges of age of the patients studied according to the type of adhesions. There is statistically significant relation between the ages of the studied patients and the type of adhesions (P < 0.05).

**Table 6:** Means  $\pm$ S.D. & range of age of the patients studied according to type of adhesions

| Age (years)            | Range  |      | ·X   | ±S.D. |
|------------------------|--------|------|------|-------|
| Type of adhesions      | . A    |      |      |       |
| No adhesions (n=7)     | 18.00  | 29.0 | 23.6 | ±3.9  |
| Filmy adhesions (n=16) | 21.0   | 33.0 | 25.0 | ±3.1  |
| Dense adhesions (n=7)  | 28.0   | 38.0 | 31.8 | ±4.1  |
| F                      | 11.705 |      |      |       |
| Р                      | < 0.05 |      |      |       |

Table 7 shows the means, standard deviations and ranges of duration of infertility of the patients studied according to the type of adhesions. There is statistically significant relation between the duration of infertility and the type of adhesions (P < 0.05).

**Table 7:** Means,  $\pm$ S.D. & range of duration of infertility of the patients studied according to type of adhesions

| Duration of infertility | Range  |      | X   | ±S.D. |
|-------------------------|--------|------|-----|-------|
| (years)                 |        |      |     |       |
| Type of adhesions       |        |      |     |       |
| No adhesions (n=7)      | 1.0    | 6.0  | 3.3 | ±1.6  |
| Filmy adhesions (n=16)  | 2.0    | 7.0  | 4.5 | ±1.9  |
| Dense adhesions (n=7)   | 4.0    | 11.0 | 8.9 | ±2.3  |
| F                       | 16.141 |      |     |       |
| P <sub>.</sub>          | < 0.05 |      |     |       |

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## STATISTICAL ANALYSIS

The results were computed on IBM PC microprocessor by a statistical software package (Microstat), copyright of Ecosoft Inc.

The results were analysed by suitable statistical methods that include:-

1. Arithmatic mean (x): It equals the sum of all observations divided by their number. It can be calculated from the following equation:

Where

 $\varepsilon x = \text{sum of obserbyations}$ 

n = number of observations

2. Standard deviation (S.D.): Calculated from the following equation:

Where :  $\varepsilon(x-x)^2$  =sum of square differences between each observation (x) and the mean value (x) of all observations. n=number of observations.

3. Chi-square (x²): It is a test of significance for the difference between more than two proportions i.e. to assess whether the observed frequency (O) of an event departs significantly

from that expected (E) on the basis of the null hypothesis. It can be calculated from the following equation:

$$x^2 = \frac{(O - \varepsilon)^2}{E}$$

Where  $\varepsilon = \text{sum}$ 

O = observed frequency

E = Expected frequency

- 4. F (Analysis of variance): Test of significance for comparison between more than two means.
- 5. Significance of results: The corresponding P value for each test was directly computed by the microprocessor, in which we used the one coll test values:

Non significant difference when P > 0.05;

Significant difference when P < 0.05 &

Highly significant difference when P< 0.01.