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# COMPARISON OF THE QUALITY OF LIFE BETWEEN TWO TREATMENTS (PERITONECTOMY PLUS PROGESTINS VS ELECTROFULGURATION PLUS GNRH AGONISTS) BY LAPAROSCOPY FOR PELVIC ENDOMETRIOSIS, IN A PRIVATE HOSPITAL IN MEXICO CITY USING THE EHP-5 QUESTIONNAIRE

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**ABSTRACT**

**Objective:** Compare quality of life in two group of patients with endometriosis Material and methods: Observational, analytical and cross-sectional study. We included 60 women between 20-40 years with endometriosis who underwent surgical and pharmacological treatment with two different schemes, at Angeles Pedregal Hospital from 2019-2022. Group A was treated with peritonectomy + progestin (desogestrel 0.075 mg orally every 24 h) for 3 months, and group B with electrofulguration + GnRH agonist (leuprorelin 3.75 mg intramuscularly every 28 days) for 3 months. EHP-5 was applied prior and 6 months after treatment. **Results:** When comparing scores before and after treatment in the overall series of patients, both groups significantly improved all items of EHP-5. **Conclusions:** Both groups had an improvement in quality of life at 6 months of follow-up.

**KEYWORDS :** Endometriosis, Quality of life, EHP-5

## INTRODUCTION:

Endometriosis is an estrogen-dependent disease, in which ectopic endometrial cells are found. The prevalence is estimate to be 2-10% in fertile women and 50% in infertile women. [1] It is a state of chronic inflammation characterized by increased proinflammatory cytokines and grown factors. [2] Risk factors include early menarche, dysmenorrhea and low body mass index. [3]

The diagnosis is based on imaging studies. Pelvic MRI is the study with the highest sensitivity and specificity.

Laparoscopy is no longer considered gold standard for diagnosis, it is only indicated as a diagnosis in case of negative imaging studies. [1] During laparoscopic surgery, biopsies are taken from the endometriotic foci and the definitive diagnosis is made by histopathological study. [4]

The aim of hormonal treatments is to induce a hypoestrogenic state by suppressing ovulation. [5] The first line treatment is combined oral contraceptives. Progestins favor women who cannot use estrogens. GnRH agonists are second line treatment. [6,7] Surgical management of endometriosis may involve ablation of the lesion by fulguration, or peritonectomy. [1,4]

## MATERIAL AND METHODS:

A longitudinally study was carried out in which treatment evaluation was through a survey on quality of life before and six months after treatment. (Table 1).

Women aged 20-40 years with Grade III and IV pelvic endometriosis were included, which was documented by laparoscopic surgery according to the classification of the American Society for Reproductive Medicine.

Group A was treated with peritonectomy + progestin (desogestrel 0.075mg orally every 24h for 3 months) and group B with electrofulguration + GnRH agonist (leuprorelin 3.75mg intramuscular every 28 days for 3 months). Both groups had a 6-mont follow up. None of the patients included in this study had had previous treatment for endometriosis.

**Table 1. EHP-5 (Endometriosis Health Profile Questionnaire)**

During the last 4 weeks, how often, because of your endometriosis, have you…

| Question | Never | Rarely | Sometimes | Often | Always |
|---|---|---|---|---|---|
| 1. Found it difficult to walk because of the pain? | 0 | 1 | 2 | 3 | 4 |
| 2. Felt as though your symptoms are ruling your life? | 0 | 1 | 2 | 3 | 4 |
| 3.Had mood swings? | 0 | 1 | 2 | 3 | 4 |
| 4. Felt others do not understand what you are going through? | 0 | 1 | 2 | 3 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| 5. Felt your appereance has been affected? | 0 | 1 | 2 | 3 | 4 |

## RESULTS

60 patients were included, of whom 2 cases were eliminated, leaving the sample at 58 patients with an average age of 29.2 ± 6.46 years, median weight: 57 (12.5) kg, and height: 1.60 (0.8) meters, with an average body max index of 22.9 ± 2.79. Within the risk factors we found that 16 patients (27.6) were overweight, 17 (29.3%) smokers, and 2 (3.4%) concomitant diseases (migraine). When comparing the epidemiological characteristics of the two groups, we observed that the patients in group B were older, but with weight, height, and body max index similar to those in group A. (Table 2)

**Table 2. Epidemiological characteristics between both treatment groups**

| | Group A (°n=29) | Group B (°n=29) | p |
|---|---|---|---|
| Age | 27.45 ± 5.74+ | 31.1 ± 6.71 | 0.03α |
| Body Mass Index | 22.33 ± 2.64+ | 23.65 ± 2.84 | 0.073α |
| Endometriosis Grade | 3 (1)* | 3 (2) | 0.126 |

°n (number of patients)
α t Student
b U Mann-Whitney
+mean (Standard deviation)
*median (Interquartile range)

When comparing the scores prior to treatment, we found that the patients in group A had α worse quality of life, especially due to the items related to mood swings and the fact that others do not understand what they were going through (Table 3).

**Table 3. Comparative analysis between groups of the scores per questioned item, Pre treatment (median an interquantile range)**

| | Group A (°n=29) | Group B (°n=29) | p[α] |
|---|---|---|---|
| Difficult to walk because of the pain | 2 (2) | 2 (3) | 0.621 |
| Symptoms ruling their life | 3 (2) | 3 (3) | 0.055 |
| Mood swings | 4 (1) | 3 (1) | <0.001 |
| Others do not understand what they are going through | 4 (1) | 3 (2) | 0.001 |
| Fisical appereance affected | 3 (2) | 3 (4) | 0.077 |
| Total | 16 (5) | 13 (9) | 0.005 |

°n (number of patients)
[α] U Mann-Whitney

Similarly, when comparing the scores 6 months after treatment between the groups, we observed that the patients in group A reflected α worse quality of life, especially due to the concepts related to whether they perceived that the symptoms were ruling their lives, the mood swings and the fact that people around them do not understand what they were going through. (Table 4)

**Table 4. Comparative analysis between groups of the scores per questioned item, Post treatment (median and interquartile range)**

| | Group A (°n=29) | Group B (°n=29) | pα |
|---|---|---|---|
| Difficult to walk because of the pain | 0 (1) | 0 (0) | 0.764 |
| Symptoms ruling their life | 3 (1) | 0 (1) | <0.001 |
| Mood swings | 2 (1) | 1 (2) | 0.001 |
| Others do not understand what they are going through | 3 (1) | 0 (0) | <0.001 |
| Fisical appereance affected | 2 (1) | 1 (2) | 0.069 |
| Total | 10 (3) | 3 (5) | <0.001 |

°n (number of patients)

α U Mann-WhitneyWhen comparing scores before and after the treatment in the overall series of patients (58), we found that both groups significantly improved all scores on the quality of life questionnaire (Table 5).

**Table 5. Comparison of scores per item before and after treatment in the overall series (median and interquartile range)**

| | Pre treatment evaluation (°n=58) | Post treatment evaluation (°n=58) | pα |
|---|---|---|---|
| Difficult to walk because of the pain | 2 (2) | 0 (0) | <0.001 |
| Symptoms ruling their life | 3 (2) | 2 (3) | <0.001 |
| Mood swings | 3 (1) | 1 (1) | <0.001 |
| Others do not understand what they are going through | 4 (1) | 2 (3) | <0.001 |
| Fisical appereance affected | 3 (2) | 1 (2) | <0.001 |
| Puntaje total | 15 (6) | 7 (7) | <0.001 |

°n (number of patients)
α U Mann-Whitney

Separating by treatment group and comparing the scores before and after it, we found that in group A there was α statistically significant improvement in 4 out of 5 items (except the item related to symptoms ruling their life) and in the overall score. In group B all the items and the global score had α statistically significant improvement.

## DISCUSSION

The Endometriosis Health Profile 30 (EHP-30) is the only existing quality of life questionnaire specific for endometriosis. It has been shown to be reliable, valid and acceptable.[10]

Endometriosis Health Profile-5 (EHP-5) is α shorter version, which was evaluated by G Aubry et Al. in α comparative study in which they describe EHP-5 has better discriminatory ability than EQ-5 to measure health- related quality of life.[8,9]

Based on the findings described in the results, we can affirm that all patients who receive treatment for endometriosis present an improvement in their quality of life. This results confirm what was described in α 2020 systematic review and α meta-analysis of 10 trials on laparoscopic surgery for endometriosis, which reported that conservative laparoscopic surgery, regardless of technique, reduced overall pain for patients.[11]

Pain reduction was similar for both laparoscopic excision (peritonectomy) compared with laparoscopic ablation (electrofulguration), which is consistent with the results reported in this study. This can be contrasted with what was described by Lukic et Al. who studied women with pelvic endometriosis and found that the symptom perceived as the most responsible for the deterioration of life quality in women with endometriosis is dyspareunia, which experienced a significant decrease after surgery. [12]

Patients who received the treatment with electro fulguration of endometriotic foci combined with hormonal treatment with a GnRH agonist for 3 months reflected better results in the aspects of the symptoms thar ruled their lives prior to treatment, they also described improvement in mood swings and in the feeling that people are not empathic with them. This coincides with what was stated by Casalechi et al. who describe that effective treatment of endometriosis can reduce the symptoms in patients with endometriosis. [13]

In a systematic review that compared progestogens and GnRH agonists for pain management in patients with endometriosis, it was observed that leuprolide was shown to be superior to progestin in pain control, which is not consistent with our findings, since that in our study both groups presented equal improvement in pain. [14]

There are no studies that evaluate the quality of life of patients at six months of follow-up after receiving mixed treatment schemes (surgical and hormonal) for patients with endometriosis, so we consider it highly clinically relevant to carry out this study since it´s findings are useful to inform future multicenter prospective studies with the aim of evaluating the optimal treatment regimen for endometriosis.

## CONCLUSSION

When comparing the scores before and after the treatment in the global series of patients, we found that both groups significantly improved all the scores of the quality-of-life questionnaire, however, when making the comparison between groups, it is evident that group B presented lower scores after treatment, but this could be due to the fact that, as it was a non-randomized study, pre-treatment scores were also lower in group B.

The strengths of this study include surgical techniques performed by expert groups in the management of endometriosis by laparoscopy, a high response rate to the post-treatment survey, and the fact of comparing two mixed treatments.

To our knowledge, this is the first Mexican study that has attempted to correlate mixed regimen treatment for endometriosis with quality-of-life scores.

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