

THE EFFECT OF POSTOPERATIVE CONTINUOUS ORAL CONTRACEPTIVES ADMINISTRATION TO REDUCE THE RECURRENCE OF OVARIAN ENDOMETRIOMAS

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Abstract: *This study aims to evaluate the recurrence of ovarian endometriosis for up to 12 months in the 3 groups. The conclusion of our study is that post-operative COCs use after surgery appear to reduce the recurrence of endometrioma (OR=0,58, CI=95%, 0,23-1,42).*

Key words: *ovarian endometriosis, oral contraceptive pills, disease recurrence.*

1. Introduction

Conservative laparoscopic surgery is recommended for endometriosis followed by medical treatment, offered to delay or to prevent recurrence. There is good evidence that excisional surgery for endometriomas provides for a more favourable outcome than drainage and ablation with regard to the recurrence [6]

Hormonal therapies could be effective after surgery because endometriosis is a steroid-responsive disease, endometriotic lesions contain estrogen, progesterone and androgen receptors. The treatment must be offered for long time, because when is stopped endometriosis may recur. The efficiency of this adjuvant treatment is controversial, in term of disease recurrence [9, 19, 23].

Some studies reported that using OCP increases the risk of endometriosis [8, 12].

Other studies conclusions was that OC users have a lower risk of endometriosis [16, 18]. Oral contraceptives may be a valuable hormonal pharmacological choice, as they are safe, well tolerated, relatively inexpensive and can be administered for long time [20]. Oral contraceptive pills (OCP), both in cyclic and continuous regimen, have been used for years in clinical practice as adjuvant post-operative measure, even without a high-level evidence of their effectiveness [14]. Oral contraception (OC) is the treatment commonly offered to young women suffering from dysmenorrhea that is not adequately alleviated by non-steroidal anti-inflammatory drugs (NSAIDs) [5]. Suppressing ovarian function with OC improves the symptoms of dysmenorrhea, but these classically recur upon stopping [4]. Practically therefore, OC is often continued for

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several years [1], as it has been shown to effectively prevent recurrence [20, 22].

GnRH agonists (GnRHa) are frequently used in women with advanced endometriosis, because they can induce suppression of possible residual lesions due to their estrogen-lowering effects. However, the efficacy of this approach in terms of disease recurrence is still controversial [3, 7, 10, 17, 20]. Although some reports suggest that GnRHa can delay recurrence [7], significant side effects and high-costs limit long-term treatment for >6 months.

2. Objectives

To evaluate the recurrence of ovarian endometriomas for up to 12 months in the 3 groups.

Statistical analysis was performed using SPSS for Windows version 9.1. Odds ratio (OR) and the corresponding 95% confidence intervals (CI) were calculated using chi-square tests or Fisher's exact tests, for endometriosis and endometriosis recurrence risk in the study groups.

3. Material and method

Retrospective, controlled study including 46 women diagnosed with ovarian endometriotic cysts, who underwent laparoscopic surgery at Clinical Hospital of Obstetrics and Gynecology Brasov from 2008 to 2011.

Inclusion criteria:

- reproductive age
- complete laparoscopic removal of ovarian endometriotic lesions (cystectomy);
- histological confirmed endometriosis
- existence of minimum one recorded gynecologic evaluation, including transvaginal ultrasonography between 6 to 12 months after surgery.

Exclusion criteria:

- women who discontinued the treatment until they were evaluated (6 to 12 months).

4. Results and discussion

The baseline clinical characteristics of the study subjects according to medical treatment are shown in Table 1.

The baseline clinical characteristics of the study subjects

Table 1

	Unilateral cysts	Bilateral cysts	Recurrence	Months of treatment
No. of patients	31	15	15	
No. of treatment	14	2	8	
COC	14	7	3	Up to 12 months
GnRH	3	6	2	6 months

From the 16 patients with no treatment recurrence was detected in 8 cases (50%, OR=2, CI=95%, 0,92-4,34). In this group 2 patients presented bilateral ovarian endometriomas and in both cases recurrence was present.

The patients with no treatment have an increased risk of recurrence as compared with GnRH agonists users, related to

bilateral cysts (OR=0,5, CI=95%, 0,43-5,32). Compared with OCP users the patients with no treatment has also an increase risk of recurrence (OR=2,45, CI=95%, 1,55-3,86).

In COC group, (no. 21), recurrence occurred in 4 cases (19,04%, OR=0,58, CI=95%, 0,23-1,42). In this group 7 women had bilateral ovarian cysts, where

recurrence was noted in 3 cases (OR=0,52, CI=95%, 0,15-1,74).

In GnRH agonists group recurrence appeared in only 3 cases, from these, 2 patients had bilateral endometriomas. Results on GnRH agonists group seem to show that the recurrence rate is lower compared with OCP users group (OR=0,68, CI=95%, 0,31-1,43).

In the subgroup of 15 women with bilateral cysts recurrence was present in 6 cases (40%) compared with the subgroup of 31 unilateral cysts where recurrence appeared in 9 cases (27,27%). This showed

that the patients with bilateral cysts has an increased risk of recurrence (p=0,0053).

In this retrospective study we demonstrated that post-operative COCs use after surgery appear to reduce the recurrence of endometrioma (OR=0,58, CI=95%, 0,23-1,42). The patients with bilateral ovarian cysts has an increased risk of recurrence compared with unilateral cysts group (p=0,0053). Bilateral endometriomas seem to be a risk factor for recurrence despite the postoperative treatment option (Fig 1).

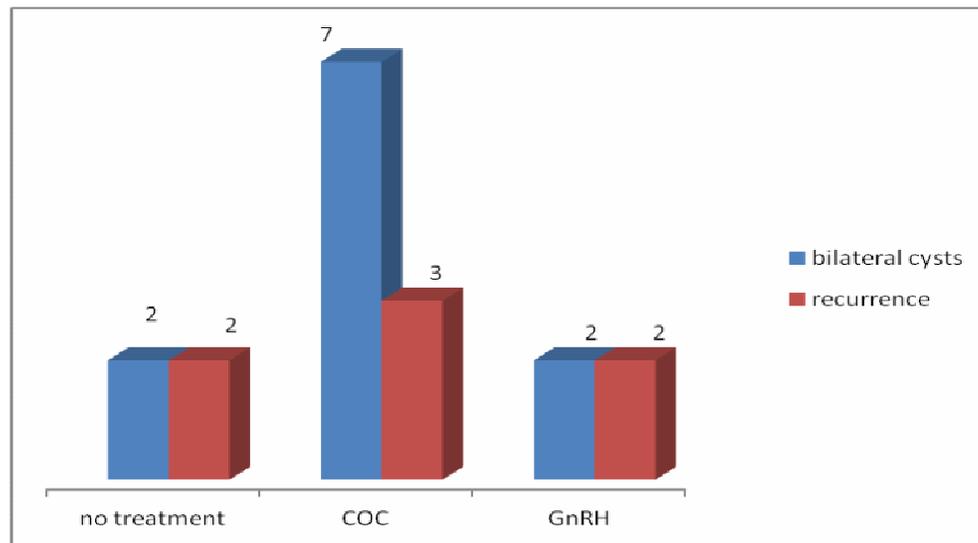


Fig. 1. *Bilateral ovarian cysts and recurrence*

However, in bilateral cysts group with COC treatment recurrence risk appears to be high compared with GnRH agonists group (OR=1,64, CI=95%, 1,18-2,28). Our GnRH agonists group was small but we have introduced these patients in the study because the partial results seem to be conclusive that the efficiency of this treatment is better in order to reduce the endometriomas recurrence. Further data

will be more conclusive, a prospective study to evaluate the positive effect of the GnRh agonists is being unrolled in our clinic.

From the analysis of other studies, it seems that there is some evidence supporting COC use as an adjuvant post-operative measure, effective in the reduction of endometriosis recurrence (Fig 2).

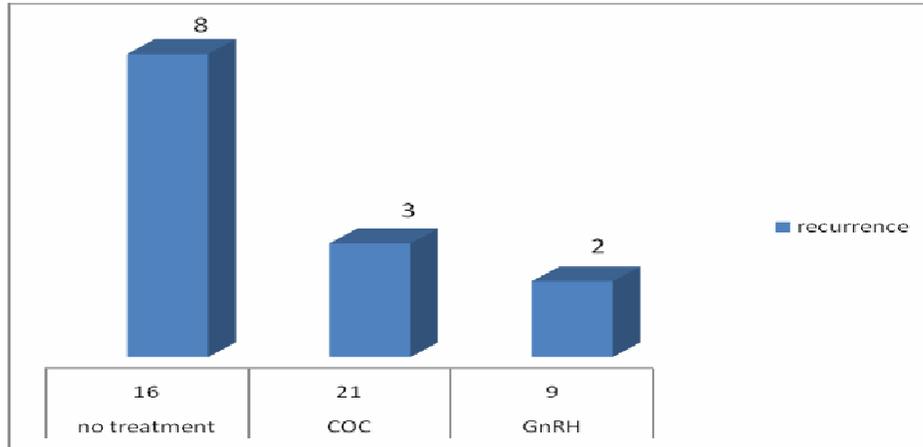


Fig. 2. *The recurrence of ovarian endometriomas*

COC can induce atrophy of the endometriotic implants [14], can down-regulate cell proliferation and increase apoptosis in endometrial tissue [11]. Therefore COC therapy might prevent implant growth and reduce endometriosis-related pain, since the pain seems correlated to the cyclic bleeding within the endometriotic lesions. On the other hand,

other studies [8, 12] report findings that contradict this statement, neither observed an association between post-operative use of COC and long-term reduction of disease recurrence.

The recurrence rate at 6 months was higher in no treatment group compared with OCP users (Fig 3).

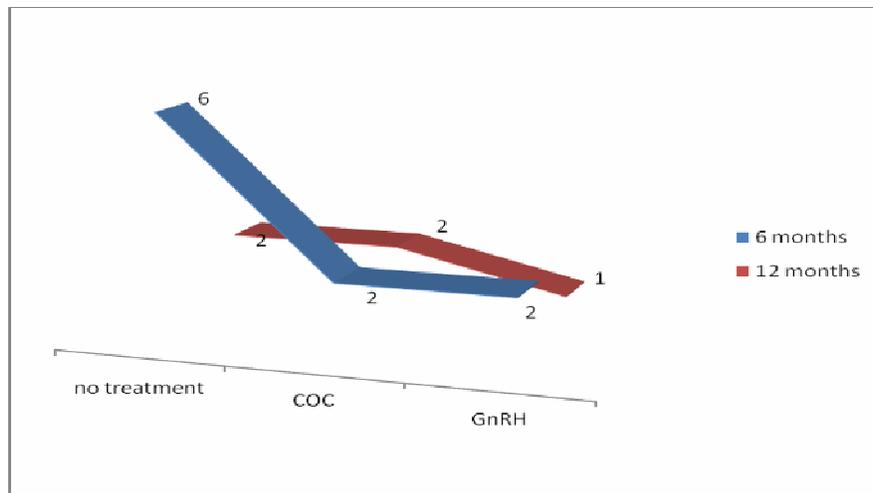


Fig. 3. *The recurrence rate at 6 and 12 months*

Recently, some recomand to prevent recurrence of endometriosis after surgery, the treatment with GnRH agonists followed by cyclic monophasic low-dose of oral contraceptive pills [9, 13]. The results on the recurrence of endometriosis after this approach is limited and more studies are needed.

5. Conclusions

Continuous postoperative use of OCP appear to reduce the ovarian endometriomas recurrence. The patients with bilateral ovarian cysts has an increased risk of recurrence compared with those with unilateral cysts.

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