**Comparison of the effectiveness of Dienogest with medroxyprogesterone acetate in the treatment of pelvic pain and recurrence of endometriosis after laparoscopic surgery**

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**Abstract**

**Purpose**

The aim of this study was to compare the effects of Dienogest and medroxyprogesterone acetate (MPA) on the recurrence of endometriosis lesions and clinical symptoms in women undergoing laparoscopic surgery.

**Methods**

This single center clinical trial was conducted among 106 women with endometriosis undergoing laparoscopic surgery who candidate receiving post-surgery hormone therapy. Participants were allocated to two groups. The first group received Dienogest pills (2 mg) daily for the first three months and then cyclic for three months afterward. The second group received MPA pills twice daily (10 mg) for three months and then cyclic for the next three months. Six months after the intervention, the rate of endometriosis recurrence, the size of endometriosis lesions and pelvic pain were assess and compared between two groups.

**Results**

Finally, data were evaluated based on 48 and 53 women in the Dienogest and MPA groups, respectively. After 6 months follow-up assessments the pelvic pain score was significantly lower in Dienogest group than MPA group (*P* < 0.001). There was not statistically difference between two groups in terms of recurrence rate of endometriosis (*P* = 0.4). Although the size of endometriosis cyst recurrence was smaller in Dienogest group compared to MPA group (*P* = 0.02).

**Conclusions**

The findings showed that Dienogest treatment has better effect in reducing pelvic pain and the mean size of the recurrent endometriosis lesions after endometriosis laparoscopic surgery when compared to MPA treatment. Although the recurrent rate of endometriosis was similar between these treatments.

**Data availability**

Data are available upon request, and patient's privacy.

**References**

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**Contributions**

MVD, HR, RH contributed to design. HR, RH conducted the study, LH and HR prepared the manuscript, HR analyzed the data. All authors read and approved the final manuscript.

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