# Treatment of endometriosis-associated pain

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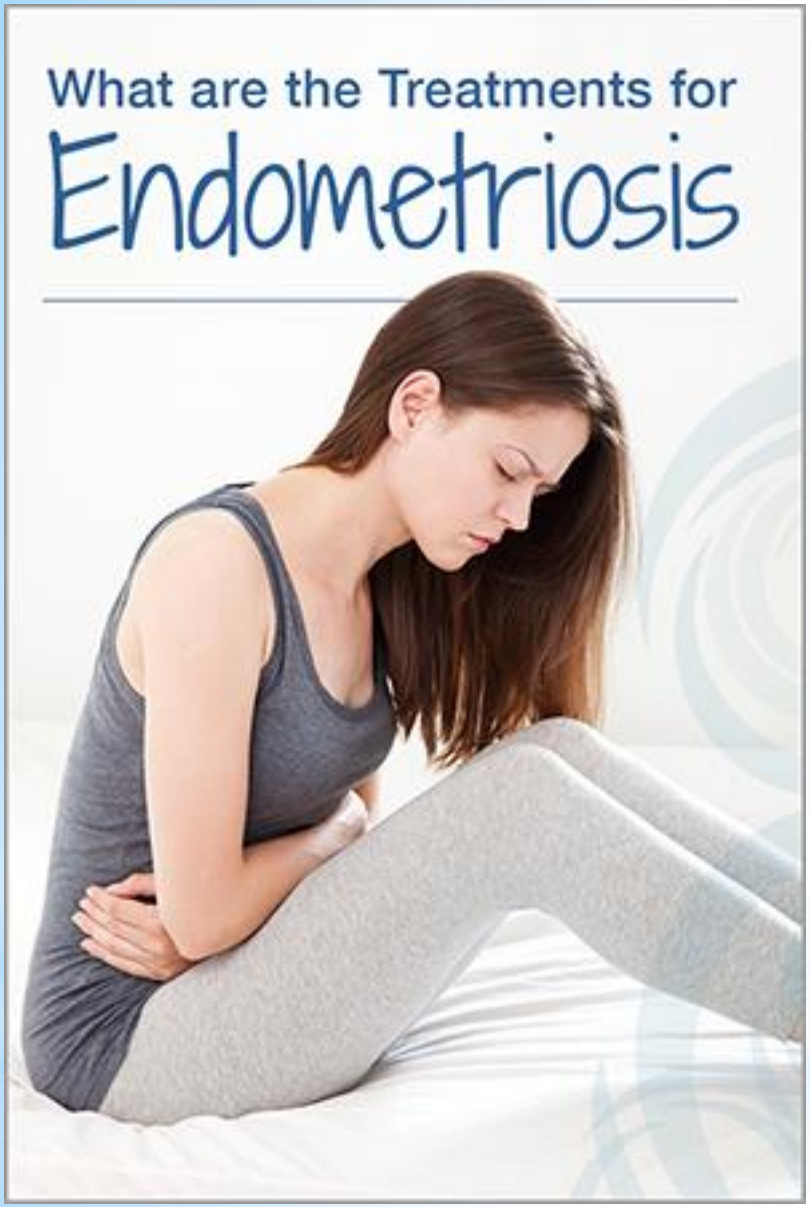


treatment of pain symptoms that are suggestive of endometriosis in the absence of a definitive diagnosis, empirical treatment is appropriate and includes counseling, analgesia, progestins, or combined oral contraceptives

# Non steroidal Anti-inflammatory Drugs

- the first-line therapy
- endometriosis is a chronic inflammatory disease
- side effects:gastric ulceration, possible inhibition of ovulation

# Hormonal Treatment

estrogen stimulate growth of endometriosis, hormonal therapy is designed to suppress estrogen synthesis, atrophy of ectopic endometrial implants ,interrupting the cycle of stimulation and bleeding.

OCP,*danazol*, *gestrinone*, *Medroxyprogesterone acetate*, GnRH agonists are all equally effective but their side effects and cost profiles differ

**Pain relief may be of short duration presumably because endometriosis and endometriosis-associated pain recur after the cessation of medical treatment.**

# Oral Contraceptives

- inducing a decidualized endometrium, the estrogenic component may stimulate endometrial growth, increase pelvic pain in the first few weeks
- cyclic oral contraceptives may provide prophylaxis against the development or recurrence of endometriosis.
- continuous administration, with out a 7-day break, may be more beneficial in terms of pain relief.
  induce pseudopregnancy caused by the resultant amenorrhea and decidualization of endometrial tissue

Any low-dose *OC* containing 30 to 35*M* g of *ethinyl estradiol* used continuously can be used for the management of endometriosis. **The objective of the treatment is the induction of amenorrhea, which should be continued for 6 to 12 months .**

As compared to cyclic administration, continuous therapy with COC has been shown to have better pain control

the limiting factors include long-term administration, risk of thromboembolism, high rates of recurrence after discontinuation and impaired fertility due to contraceptive action. Combinations containing lower dose of ethinyl estradiol (20 micrograms) as compared to high dose (30 micrograms) have a lower risk of venous thromboembolism and are currently recommended

**Table 17.1 Medical Treatment of Endometriosis-Associated Pain: Effective Regimens (Usual Duration: 6 Months)**

| | Administration | Dose | Frequency |
|---|---|---|---|
| *Progestogens* | | | |
| *Medroxyprogesterone acetate* | PO | 30 mg | Daily |
| *Dienogest* | PO | 2 mg | Daily |
| *Megestrol acetate* | PO | 40 mg | Daily |
| *Lynestrenol* | PO | 10 mg | Daily |
| *Dydrogesterone* | PO | 20–30 mg | Daily |
| *Antiprogestins* | | | |
| *Gestrinone* | PO | 1.25 or 2.5 mg | Twice weekly |
| *Danazol* | PO | 400 mg | Daily |
| *Gonadotropin-Releasing Hormone* | | | |
| *Leuprolide* | SC | 500 mg | Daily |
| | IM | 3.75 mg | Monthly |
| *Goserelin* | SC | 3.6 mg | Monthly |
| *Buserelin* | IN | 300 μg | Daily |
| | SC | 200 μg | Daily |
| *Nafarelin* | IN | 200 μg | Daily |
| *Triptorelin* | IM | 3.75 mg | Monthly |

PO, oral; SC, subcutaneous; IM, intramuscular; IN, intranasal.

# INTERUTERINE PROGESTIN-RELEASING SYSTEM

- The *levonorgestrel* intrauterine system releasing 20*M*.g per day
- high local concentrations of progestin in the pelvis and less progestin secreted into the systemic circulation, the risk of systemic side effects is reduced
- an effective therapy for rectovaginal endometriosis, lessening dysmenorrhea and non-menstrual pelvic pain as well as significantly reducing deep dyspareunia and dyschezia

# Progesterone Antagonists and Selective Progesterone Receptor Modulators

PRAs and selective progesterone receptor modulators (SPRMs) may suppress endometriosis based on their antiproliferative effects on the endometrium, without the risk for hypoestrogenism or bone loss that occurs with GnRH treatment.

# Mifepristone

a potent antiprogestagen with a direct inhibitory effect on human endometrial cells and in high doses, antiglucocorticoid action,

2.5-mg dose may be less effective than 5 mg or 10 mg for treating dysmenorrhea or dyspareunia

# AROMATASE INHIBITORS

Aromatase enzyme helps in the conversion of the steroid precursors into estrogen Unlike GnRH agonists, aromatase inhibitors block estrogen synthesis both in the periphery and the ovaries

helpful in postmenopausal women with endometriosis where peripheral fat is the predominant source of estrogen

*anastrozole* or *letrozole* stimulate ovulation and continuous administration can result in functional ovarian cysts.
can be prevented by combining aromatase inhibitors with ovarian suppressing drugs such as OCs or *progestins* in premenopausal women

## GONADOTROPIN RELEASING HORMONE ANTAGONISTS (GnRH ANTAGONISTS)

administration of GnRH antagonist Cetrorelix provided symptomatic relief and regression of the endometriotic implants as visualized on laparoscopy. With a lower degree of hypoestrogenemia and better tolerance than the GnRH agonists

Gonadotropin-releasing hormone antagonists are available as injectables (ganirelix,cetrorelix) and increasingly as oral nonpeptide forms (elagolix, abarelix, ozarelix).

**oral GnRH antagonists can produce a dose-dependent suppression of pituitary function and production of ovarian hormones**

# Pentoxifylline

no significant effect on reduction in pain ,improvement of fertility or recurrence of endometriosis

# Chinese Herbal Medicine

**Recommendation**

| | |
|---|---|
| The GDG does not recommend the use of nutritional supplements, complementary or alternative medicine in the treatment of endometriosis-associated pain, because the potential benefits and/or harms are unclear. However, the GDG acknowledges that some women who seek complementary and alternative medicine may feel benefit from this. | GPP |

# Clinical Tips

- In endometriosis treatment, all options should be administered for a minimum of 3 months, with evaluation of efficacy at the end of the trial.

- CHCs are not appropriate for addback therapy.


THANK YOU