# Commentary on Endometriosis Recurrence Management

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### Introduction

Medical treatment of endometriosis ranges from symptomatic control to therapies aimed at suppressing the ovarian production of estrogen. Almost all the treatment strategies are suppressive rather than curative so that the discontinuation of therapy leads to recurrence of symptoms. In 2009 a systematic review of literature estimated the recurrence rate of endometriosis to be 21.5% and 40-50% within two and five years, respectively(1), which is much more prevalent than previously believed. Regrowth of residual lesions and de novo lesion formation are possible pathogenesis mechanisms leading to the recurrence of endometrial lesions. Radical surgery means the elimination of all possible endometriosis implants detected in pelvic and abdominal cavity, that is sometimes insufficient to radically remove these lesions; therefore, lesions often reappear postoperatively. Medical treatment options such as the application of gonadotropin-releasing hormone agonist (GnRH-a) plays an essential role in the management of endometriosis by reducing estrogen levels in order to promote the progressive atrophy of an ectopic endometrium(2).

Our objective was to introduce a less invasive and low risk management strategy to prevent the recurrence of endometriosis through combination therapy. In this novel management approach, GnRH-a pre-treatment is used to reduce inflammations as well as endometriosis attachments, after diagnosis and staging of endometriosis through laparascopy.

## Combination Therapy

Our presented technique is based on minimal surgery with ovary suppression with regard to endometriosis stage.

Combination therapy has been adopted as an approach for the management of endometriosis over the past 25 years(3). Given the lack of evidence on how estrogen levels affect endometriosis management, second and third look laparoscopy is suggested to follow the endometriosis lesion changes three and six months after GnRH agonist treatment, which is really helpful to decrease the endometriosis spots and lesions, deep penetration, and frozen pelvic (4).

GnRh-a pre-treatment leads to the resolution of lesions, decreases operation time and the occurrence of complications, which is useful to completely clear the tissue from serious infiltration or small retroperitoneal lesions through laparoscopic surgery.

# Recurrence Results

Our data indicated that the duration of GnRH agonist therapy is highly dependent upon the stage of endometriosis. Medical treatment is the preferred option and a main advantage of this method appears to be the elimination of residual lesions so that no spot remains leading to regrowth.

In stage I, after three months of GnRH agonist therapy, a majority of lesions disappeared in addition to the coagulation of endometriosis spots to achieve complete recovery. In stages II and III, after the first look diagnostic laparoscopy, GnRH agonist was injected for six and nine months, respectively, and the prescription of the new dosage was dependent upon the second observational laparoscopy following this period. Interestingly, all stage I and II endometriosis patients cured with 3- and 6-month GnRHa treatment, respectively, and there was no report of recurrence after five years of follow up using OCP (Oral Contraceptive Pill). However, in stages III endometriosis 6-month GnRHa was not sufficient to eliminate all lesions but after 9 month most of them disappear.

## Discussion

This advanced method for early definitive diagnosis of endometriosis by performing laparoscopy instead of blindly administering initial medical and drug therapies could be a clinical advancement to treat endometriosis. The treatment cost as well as recurrence rate is lower than other therapeutic approaches with low damages or surgical complications. It seems that the presented protocol is useful in the prevention of endometriosis recurrence via complete elimination of endometriosis lesions(5).

Despite improvement of surgical techniques and interventions, we believe that for endometriosis management, "The Enemy" must be well defined and an appropriate weapon selected against it.

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