

# DEEP INFILTRATING ENDOMETRIOSIS: CAUSE OF PELVIC PAIN

Dr Yogesh Nikam



**DR YOGESH NIKAM** MBBS, FRANZCOG, MS(OBGYN) DipAdvEndsurg DipGynSurg

*Dr Nikam is a Gynaecologist specialising in Laparoscopic, Robotic and Uro-Gynaecological Surgery. He practices at San Hospital with public VMO appointments at Westmead and Blacktown Hospitals. He is a co-director of AEVAFEM, a specialist unit in Advanced Gynaecological Surgery & Fertility Medicine. P:1300 724 380 F:1300 724 381 E: yogesh@aevafem.com.au*

Endometriosis is an inflammatory process, marked by the presence of functional endometrial glands and stroma at ectopic locations outside the uterine cavity. These implants are present in the pelvis but can occur nearly anywhere in the body. They are estrogen dependant and hence affect women of reproductive age group.

Endometriosis can present in a multitude of ways. The most common symptom is of pelvic pain, especially dysmenorrhoea (80%). Other symptoms are dyspareunia (45%), dyschezia (29%), infertility (26%), endometrioma or ovarian mass (20%) and dysuria (6-10%). Some women can also be asymptomatic.

The actual prevalence of endometriosis is unknown, due to the diversity of symptoms. Studies estimate the prevalence to be around 10%. However, this increases to 30-50% in women with infertility and to 45-50% in women with chronic pelvic pain. Currently, endometriosis can only be reliably diagnosed by visual inspection at laparoscopy, with subsequent biopsy of suspect lesions for histological confirmation. The sensitivity approaches 97%, and specificity is 85%.

There are three distinct forms of endometriosis

1. Superficial or peritoneal endometriosis,
2. Endometriomas - Ovarian cysts lined by endometrial tissue and
3. Deeply Infiltrating Endometriosis (D.I.E)

In this article, I limit my discussion to the topic of D.I.E.

The revised American Society for reproductive medicine (rASRM) classification system is the most widely used classification system for endometriosis. Endometriomas & D.I.E (rASRM Stages III & IV) are considered the severe forms of the disease and pose a difficult surgical challenge for the treating gynaecologist.

Deep infiltrating endometriosis (D.I.E) is a particular form of endometriosis that penetrates greater than 5 mm beneath the peritoneal surface. D.I.E lesions are considered to be very active. They are strongly associated with pain, altering the quality of life. D.I.E implants located in the posterior cul-de-sac and can involve

important structures such as uterosacral ligaments, bowel and ureters that result in severe pain at menstruation, intercourse and defecation. Lesions anteriorly in the pelvis can involve the bladder and may be responsible for recurrent UTI's and or cyclic hematuria.

Dysmenorrhea is the most common predictor of endometriosis, correlating in 80% of the patients with endometriosis. However, it does not correlate with the severity of the disease. Patients with D.I.E may present with the classic symptoms of dysmenorrhoea, dyspareunia, dyschezia and infertility. Physical examination often reveals positive findings such as a palpable tender nodule in the rectovaginal septum or the posterior cul-de-sac. Similarly, thickening of the uterosacral ligaments, fixed and retroverted uterus that is painful on bimanual examination are also suggestive of D.I.E.

A good quality transvaginal ultrasound is the first-line study in women with chronic pelvic pain. However, it can identify ovarian endometriomas and D.I.E, which accounts for only 20% of patients with endometriosis. Fortunately, with good quality ultrasounds, D.I.E can be diagnosed with a high degree of accuracy (sensitivity 91% specificity 98%). This gives the treating surgeon a preoperative diagnosis and leads to better outcomes for the patients by allowing thorough preoperative preparation and counseling. If a recto-vaginal D.I.E nodule is noted on ultrasound, the pre-operative counseling involves discussion of a possible bowel resection.

Serum Ca 125 levels is high in patients with endometriosis (greater than 35 IU/ml) and hence not a sensitive indicator of the extent of disease.

Management of D.I.E is based on the needs of the patient. Treatment is aimed to alleviate pain and improve fertility. Preoperative counseling involves a comprehensive discussion carefully considering the desire of future fertility, side effect of medications, risks associated with proposed surgery and personal preferences.

Endometriosis is an estrogen-mediated disease. Hence, progestins can be considered as the first-line medical therapy.

Second-line medical therapies involve the use of LNG IUCD (Mirena) and GnRH agonist. For D.I.E, medical therapies have been reported to be ineffective or transiently effective for pain management. Naturally, these treatments are not recommended for women who want to conceive. Long-term compliance is difficult due to the nature of the disease and the side effects of the medical therapies.

Surgery for D.I.E in a patient with infertility: The goal of surgical therapies involves the removal of visible implants, restoration of anatomy in order to improve fertility. Excision of the implants has been shown to improve the conception rate over the background rate in between 10-25%. The current evidence does not demonstrate improvement of pregnancy rates in women undergoing surgical management of rectovaginal endometriosis.

Surgery for D.I.E in a patient with pelvic pain: Conservative therapy involves the removal of visible implants and restoration of anatomy. Definitive treatments consist of Hysterectomy with or without bilateral salpingo-oophorectomy. This is highly advantageous for pelvic pain control, reduction of dysmenorrhoea, and hence the patient satisfaction rates are high.

D.I.E involving the bowel requires a multidisciplinary approach involving a colorectal surgeon for successful management. Patients who undergo bowel resection report symptoms resolution up to 70%. However, these procedures are also associated with a significant risk of complications such as pelvic abscess, anastomosis leakage and fistula formation.

In summary, for a woman with pelvic pain, dyspareunia or painful defecation, suggestive of D.I.E, surgical therapy is appropriate and successful than medical treatment. It is important to understand that surgical results are variable and are highly dependent on the experience of the treating gynaecologist.

*References available on request.*