



ENDOMETRIOSIS : THE DAY TO DAY COMMON PROBLEM IN WOMEN

Pathology

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ABSTRACT

Introduction: Endometriosis is a condition where endometrial tissue is found outside the uterus. Endometriosis is estimated to affect 10-15% of women of reproductive age. However, it is difficult to determine the prevalence because of the diversity of symptoms and their severity and because endometriosis may be sometimes asymptomatic.

Materials & Methods: The present study is a retrospective and prospective study done for a period of 2 years during January 2015 to December 2017. Clinical and radiological data was collected for each case. Majority of the cases were presented with infertility problem.

Results: A total of 13 cases were diagnosed as Endometriosis during the two year study period. Among them 6 cases were diagnosed as scar endometriosis in young females presenting as acute cyclical pain abdomen. Other sites were ovary 4 cases and fallopian tube 3 cases. Women in the age group of 21-30 years constituted highest number of cases (08).

Conclusion: Endometriosis predominantly affects the women of reproductive age group and causes primary infertility in majority of the patients. A laparoscopic finding marks as a standard tool in diagnosis and treatment of endometriosis which would be reported by association between endometriosis stage with age of women and laparoscopic findings.

KEYWORDS

Endometriosis, infertility, painful

INTRODUCTION

Endometriosis is the term used to describe the presence of endometrial glands or stroma in abnormal locations outside the uterus. It occurs in the following sites, in descending order of frequency; ovary, uterine ligaments, rectovaginal septum, pelvic peritoneum, laparotomy scars and rarely the umbilicus, vagina, vulva or appendix. Endometriosis is a disease of the reproductive age group. It is a benign proliferative disease which has a tendency to invade the surrounding tissues and leads to adhesions. The national women's health informative centre reported dyspareunia, infertility, chronic pelvic pain, bladder/and bowel symptoms. Time taken for diagnosis in adolescent girls varies between 2-9 years. The incidence of endometriosis among infertile patient ranges between 20-50%.^{1,2} Some patients remain asymptomatic.³

MATERIALS & METHODS

The present study is a retrospective and prospective study done for a period of 2 years during January 2015 to December 2017. All relevant history including family history was collected. History of number of deliveries, any miscarriages, mode of delivery were included. Radiological data was also collected which showed features of endometriosis.

RESULTS

Total 13 cases were diagnosed as endometriosis during the study period. Out of them 4 cases show endometriosis in ovary, 3 in fallopian tube and 6 cases in omental tissue [Table 1]. Almost all patients presented with history of pain abdomen. Cases presenting with scar endometriosis were young females presenting with cyclical pain abdomen. Age group between 21-30 years constituted highest number of cases. [Table 2]

Table 1 : Showing different sites of endometriosis

Sl no	Site	No. of cases
1	Omental tissue	06
2	Ovary	04
3	Fallopian Tube	03
Total		13

Table 2 Showing age wise distribution of cases

Sl No	Age group	No of cases
1	1-10	0
2	11-20	1
3	21-30	7
4	31-40	3
5	41-50	2

DISCUSSION

Endometriosis was first determined to be a separate condition in the

1920s. Before that time endometriosis and adenomyosis were considered together. Endometriosis can affect any female, from premenarche to postmenopause, regardless of race or ethnicity or whether or not they have had children. It is primarily a disease of the reproductive years. The number of women affected is between 6–10%. It is more common in women with infertility and chronic pelvic pain (35–50%). Endometriosis is found almost exclusively in women of reproductive age, with diagnosis done usually during her 30s. It is uncommon in the under-20s. Endometriosis has a much higher prevalence in infertile women, estimated as between 25% and 40%.

Endometriosis is estimated to affect 10-15% of women of reproductive age. However, it is difficult to determine the prevalence because of the diversity of symptoms and their severity and because endometriosis may be sometimes asymptomatic. Risk factors include: an early menarche, late menopause, delayed childbearing, short menstrual cycles or long duration of menstrual flow. Obstruction to vaginal outflow eg, hydrocolpos, female genital mutilation or defects in the uterus or Fallopian tubes. Endometriosis is more common in close blood relatives of affected women. Risk for first-degree relatives of women with severe endometriosis is six times higher than that for relatives of unaffected women.

Endometriosis is rare in women past the menopause, as to develop endometriosis you need oestrogen, the female hormone. Oestrogen levels fall after the menopause. The combined oral contraceptive pill reduces the risk of developing endometriosis. This protective effect may persist for up to a year after stopping 'the pill'.

Endometriosis is an important clinical condition, it often causes infertility, dysmenorrhea, pelvic pain and other problems. Many theories and explanations were existed to explain the cause for endometriosis. The regurgitation/implantation theory tells that retrograde menstruation through the fallopian tubes occurs regularly even in normal women and could mediate spread of endometrial tissue to the peritoneal cavity⁴.

The metaplastic theory explains that endometrium could arise directly from coelomic epithelium, from which the müllerian ducts and ultimately the endometrium itself originate during embryonic development. The vascular or lymphatic dissemination theory explains that dissemination through pelvic veins and lymphatics would explain the presence of endometriotic lesions in the lungs or lymph nodes, a phenomenon not readily explainable by the first two theories.

The regurgitation implantation theory is the most reasonable explanation for endometriosis seen in the cervix or pelvic sites, whereas the metaplastic theory is an attractive explanation for other sites such as the ovary. Genetic, hormonal and immune factors have

also been postulated to increase susceptibility of some women to endometriosis. Based on the finding of aromatase cytochrome P450 in endometriotic tissue but not in normal endometrium, it has been suggested that the endometriotic tissue possesses the capacity to produce its own estrogens via this enzyme^{5,6}.

There are several complications of endometriosis, among them the important one is infertility. Moderate-to-severe endometriosis can cause tubal damage leading to infertility. Lesser degrees of endometriosis, even in the absence of any obvious tubal damage, are also associated with subfertility and increased risk of ectopic pregnancy. Adhesion formation may occur due to the endometriosis or following surgery. Women with endometriosis have an increased risk of inflammatory bowel disease, breast and other cancers, autoimmune and atopic disorders. Rarely it may be associated with invasive ovarian cancer.

Transvaginal ultrasound scanning appears to be a useful test, both to make and to exclude the diagnosis of an ovarian endometrioma. MRI scan may be a useful non-invasive tool in diagnosis, especially for subperitoneal deposits. CA 125 measurement has limited value as a screening test or diagnostic test. For a definitive diagnosis of most forms of endometriosis, laparoscopy is the gold standard investigation but it is invasive with a small risk of major complications – eg, bowel perforation. On laparoscopic findings, endometriosis is divided into Grade 1 to grade 4. Grade 1 is minimum disease, grade 2 is mild, grade 3 is moderate and grade 4 endometriosis is severe form.

The treatment of endometriosis is usually individually based, depending on the nature and severity of symptoms and the need for future fertility. Medical treatment may reduce symptoms in 80-90% of patients but none of the treatment options has been shown to reduce recurrence of symptoms once treatment has stopped.

The major goal of treatment is to reduce pain. There are 2 options in the management of pain one is non invasive medical line of treatment and the other is invasive surgical line of treatment. Non-steroidal anti-inflammatory drugs may be effective in reducing the pain associated with endometriosis, although the evidence to date is inconclusive. Paracetamol, with or without added codeine, is an alternative.

Hormonal drugs are equally effective: the COCP, danazol, oral or depot medroxyprogesterone acetate are as effective as the GnRH analogues and can be used long-term. Approximately 80-85% of patients improve with treatment.

Surgical options include removing severe and deeply infiltrating lesions (which may reduce pain related to endometriosis), ovarian cystectomy (for endometriomas), adhesiolysis and bilateral oophorectomy (often with a hysterectomy). Laparoscopic excision or ablation at the time of diagnostic laparoscopy. The main conservative surgical techniques performed by laparoscopy are thermal or laser ablation, excision, ovarian cystectomy and denervation procedures. Medical treatment for endometriosis should be avoided for women who are trying to conceive. In minimal-mild endometriosis, ablation of endometrioid lesions plus adhesiolysis is effective compared to diagnostic laparoscopy alone. The use of laparoscopic surgery in the treatment of subfertility related to minimal and mild endometriosis may improve future fertility. In moderate-to-severe endometriosis, in vitro fertilisation (IVF) is appropriate treatment, especially if there are coexisting causes of infertility and/or other treatments have failed.

Overall, the hormone treatment options, all have about the same success rate at reducing pain. The natural course of the disease is variable and may or may not be progressive. In the five years after surgery or medical treatment, 20-50% of women will have a recurrence. Long-term medical treatment (with or without surgery) has the potential to reduce recurrence but there is no clear evidence for this. Relapse following surgical treatment is common. 20% recurrence rate at two years and 40-50% at five years is known.

As we know there are a variety of treatments for endometriosis — ranging from medications to surgery—lifestyle changes should not be neglected. The following are the lifestyle and dietary changes: Following a balanced diet rich in iron, fibre and essential fatty acids (EFAs), increasing physical activity, drinking plenty of water, quitting smoking and avoiding drinking alcohol and caffeine.

CONCLUSION

Endometriosis had been a complex disorder from both the clinicians and patients view in terms of symptoms and diagnosis. This study concludes that women in their reproductive age are highly affected by endometriosis leading to primary infertility. It is difficult to predict the stages of endometriosis correlating to age of endometriosis women. The findings of the laparoscopic aided in the prediction of the stages and diagnose of endometriosis spot. Medical and surgical line of treatment are useful in majority of the cases.

Figure 1: Section showing endometrial tissue and glands in Fallopian tube – Tubal Endometriosis. [H&E,x40]

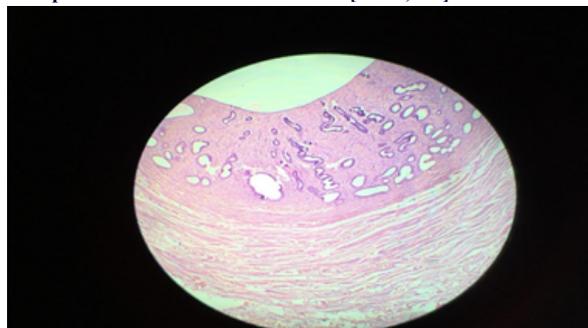
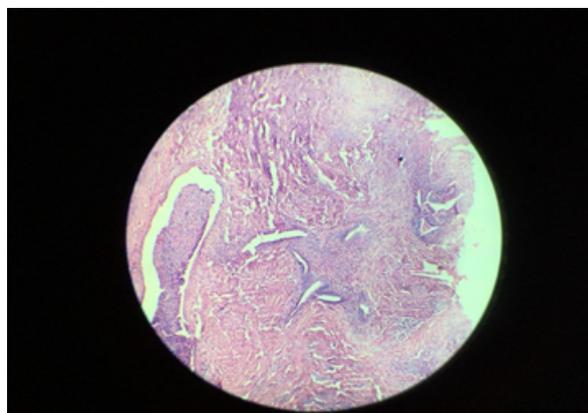


Figure 2: Section showing endometrial tissue in the omentum [H&E,x40]



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