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Original Research Article

Clinical features of endometriosis: a review of literature

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ABSTRACT

Background: The study shows the clinical features of endometriosis, common laparoscopic findings of endometriosis, and incidence in a particular age group. Objectives of current study were to discuss the clinical features of endometriosis and to know the prevalence of infertility in endometriosis
Methods: Cases of infertility, chronic pelvic pain, dysmenorrhoea, and laparoscopically diagnosed endometriosis were considered for this study.
Results: Endometriosis is a disease in which the endometrium (the tissue that lines the inside of the uterus or womb) is present outside the uterus. Endometriosis most commonly occurs in the lower abdomen or pelvis, but it can appear anywhere in the body. Symptoms of endometriosis include lower abdominal pain, dysmenorrhoea, dyspareunia, and infertility.
Conclusions: This study show typical clinical features and prevalence of infertility in patients with endometriosis in a tertiary care centre.

Keywords: Deep infiltrating endometriosis, Ultrasonography, Magnetic resonance imaging

INTRODUCTION

The exact cause of endometriosis is not known, but several theories explain the causes of endometriosis. Retrograde menstruation is one popular theory of its origin in which blood and tissue from a woman's uterus travel through the fallopian tubes into the abdominal cavity during her period. Endometriosis is a chronic multifocal gynaecologic disease that affects women of reproductive age and may cause pelvic pain and infertility. The etiology of endometriosis is unknown[1]; the pathogenesis is complex, multifactorial, and still debated. The disease is characterized by the growth of functional ectopic endometrial glands and stroma outside the uterus.[1-2] Its prevalence is approximately 10% in women of reproductive age, 20-50% in women with infertility, and nearly 90% in women with chronic pelvic pain.[1-3] The disease is thought to affect about 176 million women of reproductive age worldwide, with a peak incidence between 24 and 29 years.[4,5] The disease includes three manifestations: ovarian endometriomas, superficial peritoneal implants, and deep pelvic endometriosis. The latter is defined as endometriotic lesions penetrating the retroperitoneal space or the wall of the pelvic organs to a depth of at least 5 mm; it has an estimated prevalence of 1% among women of reproductive age and affects up to 20% of women with endometriosis.[6,7] Although the definitive diagnosis is based on laparoscopy or surgery with histological verification of endometrial glands and stroma, imaging is

necessary for treatment planning. This article reviews the clinical manifestations and prevalence of infertility in endometriosis.

METHODS

The present study is a type of research article where a retrospective study was conducted in the department of obstetrics and gynaecology, Cama and Albless hospital, Mumbai, from July 2020 to May 2022. 30 patients who underwent diagnostic laparoscopy were selected. The data for these patients were collected and analyzed after implementing the informed consent.

Selection criteria

Total 30 women of the reproductive age group who underwent diagnostic laparoscopy. Consecutive sampling (nonprobability sampling) is done: 30 women of reproductive age group underwent diagnostic laparoscopy between July 2020 to May 2022.

Inclusion and exclusion criteria

All women in the age group between 18-42 years with symptoms of chronic pelvic pain, dysmenorrhoea, and infertility who underwent diagnostic laparoscopy were included. Patients who are suspicious of malignancy and pregnant women were excluded from the study.

Procedure

A detailed history regarding Age, parity, marital status, symptoms, physical examination findings, Complete blood count, USG abdomen and pelvis, MRI, and conclusions of diagnostic laparoscopy were studied. Statistical analysis was done by SPSS software, and the difference with a p value <0.05 was considered statistically significant.

RESULTS

There were 32 women included in the study. Most of the subjects with endometriosis are between 18-35 years. The prevalence of infertility in endometriosis in this study at the mean age, with the highest prevalence for endometriosis, is 26±9 years. Among 30 cases, there is the maximum incidence of symptoms of chronic pelvic pain (78.78%), followed by infertility (63.63%). Menstrual symptoms are also common and account for 57.57% (Table 1). The study shows that the rate of infertility in the age group between 23-26 years is the highest (35%), followed by 27-30 years (24%). The incidence rate is least in the age groups of 18-22 years, i.e., 18%, and in more than 34 years (9%) (Table 2). Maximum endometriotic lesions in laparoscopic findings are adhesions which account for 45% and is responsible for chronic pelvic pain, followed by endometriomas or chocolate cysts, which have 42 % incidence, followed by endometriotic Lesions or deep infiltrating endometriosis (Table 3).

Table 1: Distribution of clinical features in endometriosis.

Clinical manifestation	Prevalence (%)
Infertility	63.63
Chronic pelvic pain	78.78
Menstrual symptoms	57.57
Others	15

Table 2: Distribution of the incidence of infertility in different age groups.

Age groups (years)	Infertility (%)
18-22	14
23-26	35
27-30	24
31-34	18
>34	9

Table 3: Type of endometriotic lesions laparoscopically identified

Endometriotic lesions	Prevalence (%)
Endometrioma	42.42
Adhesions	45.45
Endometriotic peritoneal deposits	18.18
Others	9

DISCUSSION

Endometriosis is a chronic condition affecting women in the reproductive Age group. Diagnosis of endometriosis is done chiefly clinically and confirmed through laparoscopy. Other modes include physical examination, laboratory tests, and different imaging techniques.

What is endometriosis?

Endometriosis is characterized by the growth of functional ectopic endometrial glands and stroma outside the uterus, most probably via retrograde transmission. It includes different manifestations: ovarian endometriomas, peritoneal deposits, and deep infiltrating endometriosis. The primary locations are in the pelvis.

Causes of endometriosis

The exact cause of endometriosis is unknown. Retrograde menstruation is one theory of origin in which blood and tissue from a woman's uterus travel through the fallopian tubes into the abdominal cavity during menstruation. Another theory of endometriosis origin is called coelomic metaplasia, in which cells in the body outside of the uterus can undergo metaplastic change to become cells that line the uterus. This is a common explanation for endometriosis at unusual sites like the thumb or

knee. The reason for endometriosis in locations far from the uterus is that cells from the lining of the uterus travel through blood vessels or the lymphatic system, reaching other distant organs or body areas. Endometriosis can also spread at the time of surgery. For example, a woman with endometriosis that undergoes a cesarean section could have endometriosis implanted in the abdominal incision so that she develops endometriosis in the scar from the surgery. The disease is characterized by the growth of functional ectopic endometrial glands and stroma outside the uterus.[1-3] Its prevalence is 10% in women of reproductive age, 20-50% in women with infertility, and nearly 90% in women with chronic pelvic pain.[1-3] The disease is thought to affect about 176 million women of reproductive age worldwide, with a peak incidence between 24 and 29 years.[4,5]

The disease includes mainly three manifestations: ovarian endometriomas, superficial peritoneal implants, and deep pelvic endometriosis. Deep pelvic endometriosis is endometriotic lesions penetrating the retroperitoneal space or the wall of the pelvic organs to a depth of at least 5 mm. The final diagnosis is based on laparoscopy or surgery with histological verification of the endometrial gland. This article reviews clinical manifestations, the incidence in particular age groups, and endometriosis lesions. Women with deep pelvic endometriosis are associated with pelvic pain, dysmenorrhea, dyspareunia, urinary tract symptoms, and infertility.[6-12] Pelvic pain becomes chronic. The sensory innervation of endometriotic lesions may play a key role in hyperalgesia and pain generation. In deep infiltrating lesions, the nerve fiber density is higher than in peritoneal and ovarian deposits.[13] The intensity of the pain is proportional to the depth to which the lesions penetrate; nevertheless, in many cases, the extent of endometriotic lesions does not correlate with the severity of symptoms.[6,14] In 2013, Jansen et al reviewed 15 studies with 880 adolescents aged 10-21 years with symptoms of dysmenorrhea or pelvic pain. Endometriosis was diagnosed in 62% of adolescent women who underwent diagnostic laparoscopic examinations for pain. The rate of diagnosis was 49% in those experiencing chronic pelvic pain (204 out of 420 women), 70% in those with dysmenorrhea (102 out of 146 women), and 75% in those with chronic pelvic pain resistant to medical therapy (237 out of 314 women).[15] In this study, we have included patients with laparoscopically confirmed endometriosis and their most common clinical manifestation. The age group is between 18-40 years and mainly comprises women desiring pregnancy and patients with chronic pelvic pain and dysmenorrhoea. We found that chronic pelvic pain is the most typical clinical feature, followed by infertility and dysmenorrhoea. The mean age group in which the prevalence of endometriosis is maximum in this study is 26±9 years. The study includes all the patients with laparoscopically confirmed endometriosis who received the same treatment. The lesions mainly include ovarian endometriomas, adhesions, and endometriotic peritoneal deposits.

Limitations

Limitations of current study were; lack of follow-up and a small sample size; a larger sample size would have given better results.

CONCLUSION

The study shows a maximum incidence of symptoms of chronic pelvic pain of 78.78%, followed by infertility at 63.63%. Menstrual symptoms account for 57.57%. The incidence of infertility is maximum in the age group between 23-26 years in our study, followed by 27-30 years. The incidence rate is least in the age groups of 18-22 years and more than 34 years. Maximum endometriotic lesions in the study after laparoscopy include adhesions which account for 45% and are responsible for chronic pelvic pain, then endometriomas or chocolate cysts which have 42 % incidence, followed by endometriotic Lesions or deep infiltrating endometriosis.

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