



ENDOMETRIOSIS – AN ENIGMATIC DISEASE- CASE SERIES

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ABSTRACT

Introduction: Endometriosis is characterized by presence of endometrial tissue consisting of glands & or stroma found outside the uterine cavity. This disease was first described by Daniel Shoren in 1690. Several theories about the pathogenesis have been proposed such as implantation theory, the coelomic metaplasia & the lymphatic or haematogenous dissemination theory². Early diagnosis of this disease is important as social impact of endometriosis is related to fertility problems. The overall prevalence is estimated to be 5-10% and in infertile women has been reported as 38%. **Observations and results:** In our prospective study among 13 cases, 7 cases were reported as scar endometriosis, 4 cases as ovarian endometriosis, one case each of fallopian tube endometriosis & endometriosis of cervix. **Summary/conclusion:** Endometriosis has no pathognomic signs or symptoms, it is therefore difficult to diagnose. Early diagnosis & proper surgical interventions such as excision biopsy, salpingoophorectomy, etc can prevent the complications such as infertility, dysmenorrhea, dyspareunia & chronic pelvic pain. Malignant transformation is a rare complication of endometriosis (<1%).

KEYWORDS : Endometriosis, coelomic metaplasia, haematogenous dissemination.

INTRODUCTION:

This disease was first described by Daniel Shoren in 1690. The symptoms of this disease were presented by Arthur Duff in 1769¹.

Endometriosis is a pathological condition characterized by the presence of endometrial structures including glands and or stroma outside the uterine cavity. It can be located in cervix, vagina, vulva, rectovaginal septum, ovary, fallopian tubes, uterine ligaments, appendix, small and large bowel, bladder and ureters, pelvic peritoneum, lymph nodes, kidney, skin, skeletal muscle, peripheral nerves, pleura, lung and nasal cavity².

Endometriosis affects 10-15% of all women of reproductive age. Endometriosis is a disease that has major social and economical impact. The stigmata of endometriosis include dysmenorrhea, dyspareunia, chronic pelvic pain, irregular uterine bleeding and or infertility^{3,4}.

The definitive diagnosis of endometriosis can be attained solely through histological examination of ectopic implants obtained by surgical or laparoscopic procedures.

MATERIAL AND METHODS-

Prospective histopathological study of thirteen female patients was done. Received surgical specimens were excision biopsy, laparoscopic biopsy & hysterectomy with bilateral salpingoophorectomy specimens. Routine tissue processing was done & slides were stained with hematoxylin and eosin. Clinical details were noted & correlated with microscopic diagnosis.

Pathogenesis-

Retrograde menstruation theory- Permits implanting endometrial glands and stroma into peritoneal cavity⁵.

Coelomic metaplasia theory- Coelomic walls (peritoneal serosa) are embryologically related to mullerian ducts hence metaplastic changes lead to development of endometriosis⁶.

Hematogenous / lymphatic theory- Dissemination of endometrial cells takes place by lymphatic or hematogenous vessels⁷

Stem cell recruitment theory- Endometrial and or hematopoietic stem cells could differentiate into endometriotic tissue at different anatomical sites⁸.

Embryogenetic theory- Persistence of residual embryonic cells of Wolffian or mullerian ducts, may develop into endometriotic lesions in response to estrogen⁹.

Macrophages recognize the foreign cells of endometrium in extrauterine sites and become activated. The activated macrophages secrete proinflammatory cytokines such as IL-6, TNF-alpha, IL-1b and IL-8, in increased amounts. Increased release of pro-inflammatory cytokines and reduced production of anti-inflammatory factors from stromal, epithelial, smooth or immune cells contribute to the initiation, development and progression of endometriosis. Thus, endometriosis is considered a chronic inflammatory process¹⁰.

Endometriosis can influence fertility in several ways – Distorted anatomy of pelvis, adhesions, scarred fallopian tubes, inflammation of female genital organs. Often, this infertility remains unexplained due to delay in diagnosing significant levels of stress¹¹.

Pain and the associated dysfunction of body worsen quality of life and reduce professional productivity. The disease can be chronic and recurrent. Due to its impact on sexuality and fertility, it can have negative impact on partner relationships¹².

Histologically in endometriosis neo angiogenesis is accompanied by the formation of nerves, which may explain the pain in patients¹³.

Risk factors for endometriosis-

- Early menarche
- Age 25-29 years
- Daily consumption of alcohol in the amount of at least 10g per day
- Endometriosis is more often diagnosed in infertile women who are active smokers and whose body mass index is normal or low¹⁴.

OBSERVATION AND DISCUSSION-

We reported 13 cases of endometriosis. Among which 7 cases were of cesarian scar endometriosis, 4 cases were of ovarian, 1 case of fallopian tube endometriosis and 1 case of cervical endometriosis.

In the patients with cesarian scar endometriosis, the age ranged from 26 year to 34 years and the main complaints were abdominal mass or nodule and cyclic pain.

In patients with ovarian endometriosis, the age were 32 year, 38 year and 40 year respectively. The patients were having pain in abdomen and one patient presented with infertility. Association with ovarian serous cyst adenofibroma was noted in one case.

A case of fallopian tube endometriosis (age-42 year) presented with severe abdominal pain. Another single case of cervical endometriosis presented with dysmenorrhea and dyspareunia.

Patients with cesarian scar endometriosis (age-40 year) were having bluish nodule or palpable mass and we received fibrofatty mass with cut surface- whitish brown.

In ovarian cases, the ovaries were enlarged. In two cases, the surfaces of ovaries were solid with greyish brownish areas. While in third case, the ovary was enlarged, cystic and filled with brownish, hemorrhagic fluid, grossly diagnosed as chocolate cyst. In fourth case ovaries was enlarged. Cut section showed solid cystic areas and adjacent remnant of normal ovarian tissue which microscopically showed evidence of endometriosis.

Microscopy-



Figure No. 1- Scar Endometriosis



Figure No. 2 – Cervical Endometriosis

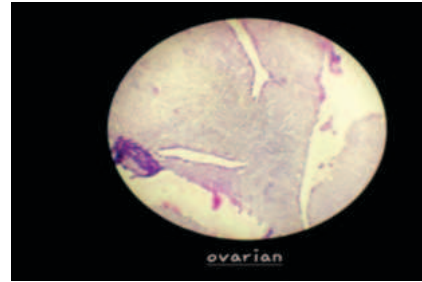


Figure No. 3 – Ovarian Endometriosis

Endometriosis is composed of the functional layer of endometrium and it may go through proliferating, secretory and menstrual stages.

Most accepted theories are retrograde menstruation, lymphatic or haematogenous dissemination theory^{8,9,1}, the coelomic metaplasia theory and extrauterine sourced stem cells.

Certain complications of endometriosis such as adhesions, reduced fertility, increased risk of miscarriage, rupture of cysts causing severe pain and last but not least is risk of certain types of benign and malignant tumors, particularly ovarian are observed in various studies as well as in our patient presented with such symptoms.

CONCLUSION-

Despite the fact that this disease is very common and causes significant morbidity, endometriosis is an incredibly underdiagnosed and untreated pathology with irrationally long interval period between beginning of symptoms and a definitive diagnosis.

Early diagnosis and proper surgical interventions such as excision biopsy, salpingoophorectomy, etc can prevent the complications such as infertility, dysmenorrhea, dyspareunia, chronic pelvic pain and rare complication of development of malignant disease.

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