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Severe Endometriosis in a Young Nulliparous Woman with Infertility in a Tertiary Hospital in Calabar, South-South Nigeria

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Abstract

Endometriosis is a complex and frequently underdiagnosed gynecological condition that can considerably impact a woman's general life be it reproductive, mental or social life. This case report presents the dispassionate annals, demonstrative challenges, and situation approach for a 29-year-old woman nulliparous who was diagnosed with endometriosis at the obstetrics and gynecology department in the Nigerian Navy Reference Hospital Calabar. She presented with chronic cyclical pelvic pain and a history of infertility. Here, we are going to emphasize the significance of early diagnosis and treatment of this medical condition.

Keywords: Endometriosis, Infertility, Nulliparous, Woman, Severe.

INTRODUCTION

Endometriosis was first described by Sampson in 1921, it is an incessant condition characterized by the presence of endometrial-like tissue (glands and stroma) outside the uterine cavity[1]. It is estimated to be present in 6-10% of women in the reproductive age group and up to 50% of women with infertility[2]. Endometriosis

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manifests with various signs and symptoms, depending on the implantation site of the endometrial tissue, the catch in endometriosis is that symptoms are always cyclical, for example in the brain it manifests as catamenial seizure, lungs as catamenial pneumothorax, hemothorax, and hemoptysis, anal canal or intestine as hematochezia, bladder as hematuria and the most common symptom been pelvic pain due to implantation in the surrounding structures close to the uterus e.g. fallopian tubes and ovaries (endometrioma)[3,4]. Endometriosis causes adhesion of structures mostly in the pelvis as the condition could be as bad as a frozen pelvis, which causes distortion of the structure of the reproductive system and presents as infertility[5]. There have been several theories put together as a cause of endometriosis such as genetic theory, immunological theory, Samson theory, hormonal theory, and retrograde menstruation theory and metaplasia of coelomic epithelium theory[6,7].

A 29-year-old married nulliparous woman, who presented to our facility on account of a 2 year history of inability to conceive, cyclical lower abdominal pain, menstrual pain and painful sexual intercourse. The pains were described to be linked to the start of her menstrual cycle and impaired her daily activities. Her monthly cycle was described as the worst period of her life due to excruciating pains, as all her family members panic when her cycle date is coming close. She had no history of abdominal swelling, vagina discharge, multiple sexual partners, or a family history of similar illness.

General examination showed a middle-aged lady in no obvious distress, calm and cooperative, not pale, acyanosed, not dehydrated, nil lymphadenopathy and nil pedal edema. The cardiovascular and respiratory systems were unremarkable. The abdomen was full moved with respiration, nil area of tenderness, the liver, kidney and spleen were clinically normal. Bimanual vaginal examination revealed a fixed uterus, tender adnexal with a non-mobile bilateral adnexa mass.

Transvaginal ultrasound demonstrated bilateral ovarian cysts; 6cm x 4cm in the right ovary and 7cm x 5cm in the left ovay with fluid in the pouch of Douglas.

The World Health Organization gold standard for diagnosis of endometriosis is laparoscopy however, due to unavailability of laparoscopic machine in our facility we resorted to laparotomy. Before laparotomy full blood count and serological screening were carried out which were unremarkable. She was counselled for the procedure and consent was taken. It was carried out through a pfannenstiel incision, each abdominal layer was opened to gain entrance into the peritoneal cavity, there were presence of dense adhesion in the peritoneal cavity ,blunt adhesiolysis was carried out to expose the pelvic organs. Figure 1 showed the pelvic organs after blunt adhesiolysis.

FIGURE 1: Pelvic organs exposed after adhesiolysis

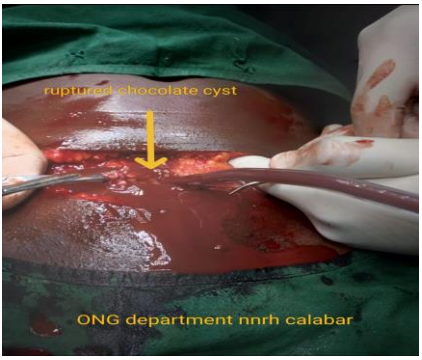
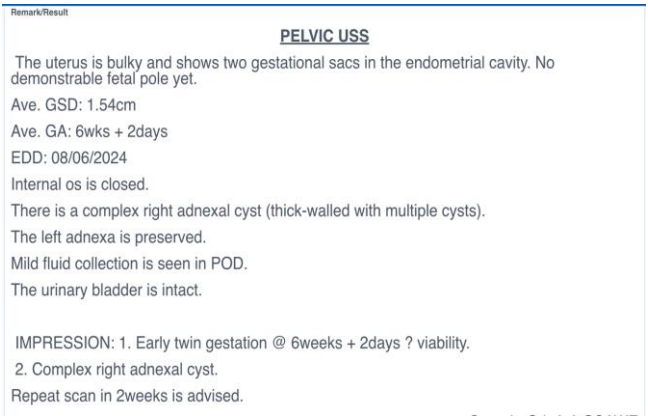


FIGURE 2: Ruptured ovarian chocolate cyst (endometrioma)

During the process of adhesiolysis the right ovarian chocolate cyst (endometrioma) ruptured which is seen in Figure 2. The endometriotic tissues were removed and the remaining ovarian tissue was repaired using vicryl 1. Great care was taken to ensure both fallopian tubes were not damaged. Abdominal lavage was carried out using normal saline, and abdominal wall was closed in layers. The skin was closed by subcuticular technique. Post-operatively she was managed with antibiotics, analgesia and intravenous fluids and was subsequently discharged home. At post-operative gynecological clinics she acknowledged pain-free menstrual cycles. Currently, she has spontaneously conceived of a twin gestation at 6 weeks 2 days duration. See in figure 3.


Remark/Result

PELVIC USS

The uterus is bulky and shows two gestational sacs in the endometrial cavity. No demonstrable fetal pole yet.

Ave. GSD: 1.54cm

Ave. GA: 6wks + 2days

EDD: 08/06/2024

Internal os is closed.

There is a complex right adnexal cyst (thick-walled with multiple cysts).

The left adnexa is preserved.

Mild fluid collection is seen in POD.

The urinary bladder is intact.

IMPRESSION: 1. Early twin gestation @ 6weeks + 2days ? viability.

2. Complex right adnexal cyst.

Repeat scan in 2weeks is advised.

FIGURE 3: Early twin gestation

DISCUSSION

Endometriosis occurs in 6-10% of women in the reproductive age group and up to 50% of women with infertility; its commonest presentation being endometrioma (ovarian endometriotic cyst)[2,3]. It has been linked to overproduction of prostaglandin due to an increase in cox 2 activity and also increased production of estrogen due to increasing aromatase activity. Pain from endometriosis is thought to be due to the stimulation of estrogen and progesterone during menstrual cycle[2,3]. Endometrial tissues outside the uterine cavity also undergo secretory changes and bleed; the surrounding tissues

prevent the escape of hemorrhagic fluid that usually escapes from the uterus during menstrual flow causing the build-up of fluid in the organ such as in the lung (hemothorax)[8,9]. Pain is usually produced from inflammation, pressure, and adhesion formation. The relationship between endometriosis and infertility has been tied down to some scenario like distortion of the anatomy of the female reproductive system, formation of dense adhesion, endometriotic implants destroying the ovarian or fallopian tissues and also the production of low-quality oocyte in women with endometriosis[10]. Risk factors associated with this condition are early menarche, prolonged menstrual flow, and heavy bleeding during the menstrual cycle. Prevention of endometriosis is not possible however, women with this condition are advised for early childbearing.

Treatment modalities involve expectant management, medical management (analgesics therapy or hormonal therapy), surgical management, and assisted reproductive management. Expectant management is carried out for less severe endometriosis. Hormonal drugs like combined oral contraceptives, progestins, synthetic androgens, gonadotropin-releasing hormone agonists and aromatase inhibitors[11]. Radical surgery which is hysterectomy plus bilateral salpingo-oophorectomy can be carried out only when the patient has no desire for childbearing. Pre-sacral neurectomy can be done during laparotomy or laparoscopy to relieve pelvic pains, it is performed only in selected cases, such as women with recurrent endometriosis, severe dysmenorrhea, or endometriosis that did not respond to initial treatment[12]. Assisted reproductive management is done in infertile women with endometriosis who are old or who have not responded to other therapies like ovulation induction therapies. Major complications of endometriosis are usually seen in distant endometriosis.

Most important step in endometriosis management is the initial operative staging of the disease to obtain adequate information on which modality of therapy is needed. The patient's symptoms and desire for childbearing dictate appropriate therapy. Long-term concerns must be more guarded because all contemporary therapies offer relief, but not cure. Even after definitive surgery, endometriosis may occur, but the risk is very low[13,14].

CONCLUSION

Prompt diagnosis and early treatment of endometriosis are instrumental to fertility conservation in women of reproductive age group who are desirous of pregnancy as well as the resolution of the psychological and physical trauma associated with the disease.

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