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Umbilical Endometriosis a Rare Clinical Entity: A Case Report and Management

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ABSTRACT

Endometriosis is the presence of endometrial tissue outside the lining of the uterine cavity.[1,2,3] It is a benign gynecological disorder affecting about 5% of reproductive age women.[3,4,5]

Umbilical endometriosis is the presence of endometrial gland and stroma in the umbilicus. It is a rare site of occurrence. It is usually preceded by history of a pelvic surgery, as was found in this patient. [11,12,15]

The management usually involves a multidisciplinary team comprising the gynecologist, the plastic surgeon, the colorectal surgeon, Fertility and Pain management teams. [10,11,12]

This was the case of a 33year old nulliparous, who had abdominal myomectomy 5 years prior to presentation. She noticed bleeding and pain from her umbilicus one year ago. Bleeding was cyclical, associated with her menses and was bright red in color. Over time, the umbilicus developed a hyper pigmented exophytic mass, which was tender to touch. Laparotomy, complete excision of umbilical mass and intra peritoneal adhesiolysis was done.

Her first menses after surgery was painless and there was no bleeding from the reconstructed umbilical site. When she is ready to start a family, she will be referred to the fertility team.

INTRODUCTION:

Endometriosis was introduced by Dr John Sampson in 1925. It is defined as the presence of endometrial tissue outside the lining of the uterine cavity.[2,3,5]

Umbilical endometriosis is one of the rare, ectopic sites of endometriosis. The most common sites are ovaries (50%) of cases, Others are fallopian tubes, uterine ligaments, gastro intestinal tract(GIT), cervix, inquinal ligament, bladder wall, kidney, pelvic lymph nodes, lungs, pleura and abdominal wall.[2,3,5]

In our centre, a similar case of umbilical endometriosis was treated in 2022, making this case the second recorded case of umbilical endometriosis. There had been poor data prior to this.

Umbilical endometriosis is defined as the presence of endometrial glands and stroma within the umbilicus. It is also known as Villars nodule.[4] It forms 0.5-1% of all cases of endometriosis. It represents 30-40% of cases of abdominal wall endometriosis[2,3,4,11]. It responds to hormones in cyclical manner.

There could be a predisposing history of previous pelvic surgery, as was seen in this patient. Complications associated with umbilical endometriosis are low self-esteem, social stigma -because of the cyclical bleeding from the umbilicus, avoidance of sexual intercourse, infertility, cyst formation and scar tissue.[12,15]

This was the case of a 33year old nullipara, who had abdominal myomectomy 5years prior to presentation, who was now presenting with one-year history of bleeding from the umbilicus associated with pain and swelling from the same site. She had complete excision of the mass, and lysis of the intra peritoneal adhesions. Histopathology report of the umbilical specimen confirmed umbilical endometriosis.

CASE REPORT:

Miss OC, was a 33year old nullipara, who presented to the gynaecology clinic with bleeding from her umbilicus of one-year duration. Bleeding was cyclical and was associated with her menses. Bleeding was bright red, scanty and associated with swelling and pain at the umbilicus. She had dyspareunia and dysmenorrhea. There was no associated menorrhagia, change in bowel habit, dyschezia, urinary symptoms, cough or haemoptysis.

Five years ago, she did an abdominal myomectomy for symptomatic uterine fibroid. There was no complication since then until a year ago. She was not a known diabetic or hypertensive. She was not on any medication.

On examination, she was a young lady, looking anxious and depressed. She was afebrile, not pale, not jaundiced and with no pedal oedema. Her chest was clinically clear. Her pulse was 96b/min, blood pressure 130/76mmHg.

Her abdomen was full and moved with respiration. She had a transverse suprapubic scar. There was a hyper pigmented irregular mass at the umbilicus which measured 6cm x 5cm x5cm. Mass was tender on palpation. Her liver, spleen and kidneys were not enlarged. Fundal height was not palpable per abdomen.

Vaginal examination noted a normal vulva and vagina. Cervix was central, with the os closed. Uterus was normal size and anteverted. Adnexa was free. Cervical excitation tenderness was mild and examining finger was stained with vaginal fluids. She was reviewed by the plastic surgeon, the anaesthetist, the haematologist and fertility unit. Her full blood count result was within normal limits. Her electrolyte, urea and creatinine results were also within normal limits.

She had an exploratory laparotomy, complete excision of the umbilical mass, adhesiolysis of intra-abdominal adhesions, separation of loop of small intestine adherent to anterior abdominal wall and excision of a thick fibrous band connecting the fundus of the uterus to the anterior abdominal wall.

Umbilical specimen was sent for histopathology. Abdominal wall was closed in layers with an attempt to reconstruct a new umbilicus. Estimated blood loss was 300ml. Her post-operative recovery was uneventful. She was placed on analgesics and prophylactic antibiotics. Her post-operative packed cell volume was 30%. She was discharged home on the 5th post-operative day in good condition.

Two weeks later, histology report noted:

Gross: An oval shaped biopsy of a negroid skin fixed in formalin, measuring 7 x5 x6 cm tissue. At the mid portion is an exophytic growth that appears hyperpigmented and multiple papillobulous lesions. The cut surface revealed a central yellowish subcutaneous tissue.

Micro: Varying sizes of endometrial glands and stroma in the sub epidermis. A diagnosis of Umbilical Endometriosis was made.

She has had her first menstruation after discharge. There was no bleeding from the umbilicus. There was also no dysmenorrhea. She is still on follow-up.

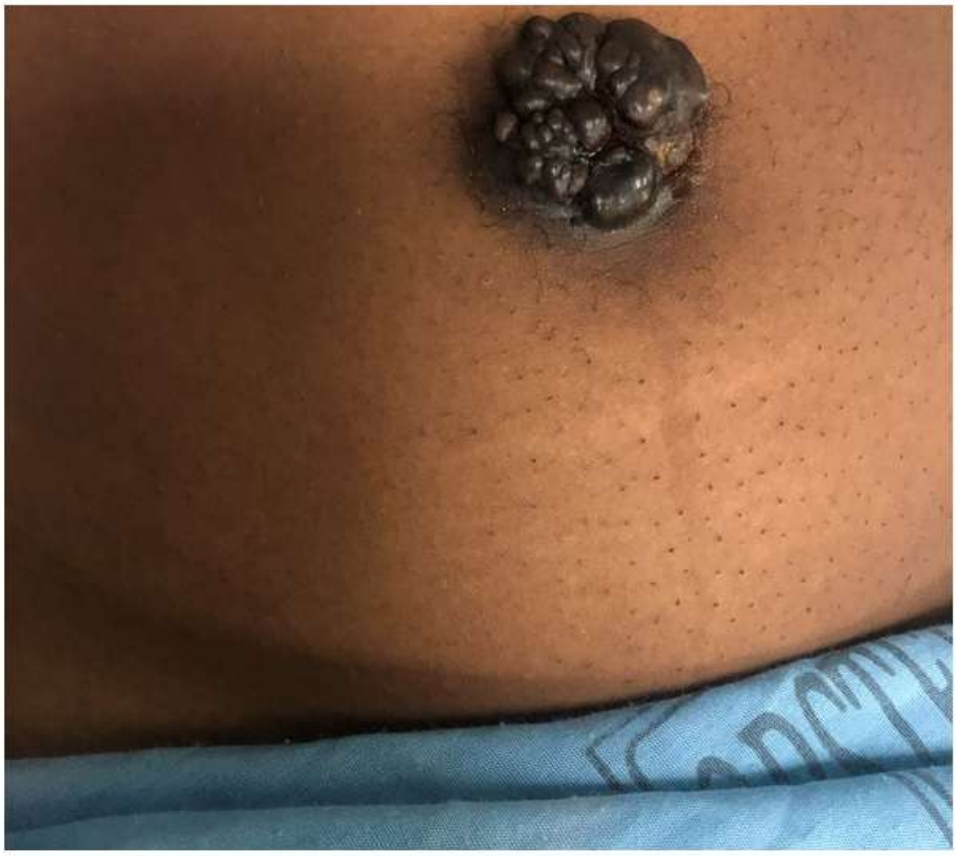

FIG. 1: Showing Umbilical Mass

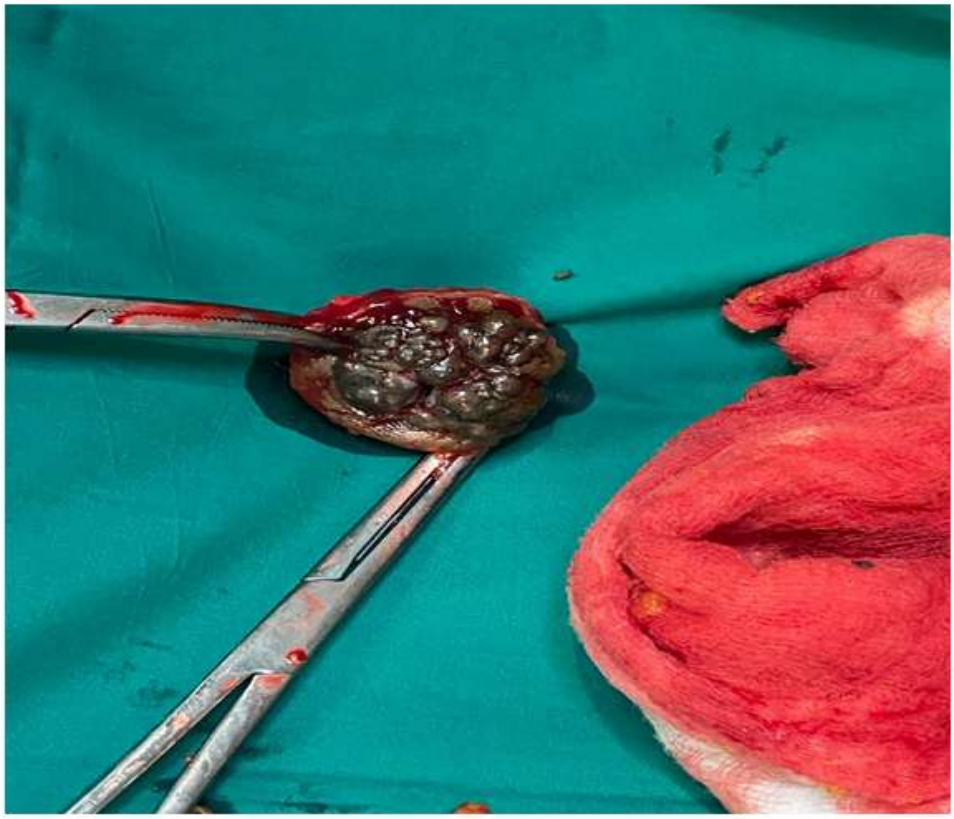

FIG 2-Showing excised umbilical mass

DISCUSSION

Umbilical endometriosis, also known as villar's nodule was first described by villar in 1886.[4,7,9,12]

Due to the presence of endometrial glands and stroma in the Umblicus, it responds to hormones in cyclical manner.[1,3,4,5] The gross appearance of the transverse section appears yellowish, just like the endometrium lining the uterine cavity. This was also noted in this patient.

There are no adequate statistics about the incidence of Umbilical endometriosis, but one case was recorded in this facility in 2022.

Umbilical endometriosis typically develops after a surgical procedure like in this case report. There was a previous myomectomy 5 years prior to presentation. Surgical procedures that breach the endometrium could inoculate endometrial glands and stroma to other parts of the pelvis and abdominal wall. There is also haematological spread.[2,3,4] These endometrial cells, when deposited in the umbilicus, respond to hormones in a cyclical manner. Thus there is cyclical bleeding within and from deposits, leading to inflammations, fibriosis and adhesions.[2,4,7,8]

The risk of malignant transformation is about 3%.[2] Endometriosis can also occur in distant and unusual sites such as joints, skin, kidneys and lungs. There are recorded cases of Primary Umbilical Endometriosis.[3,9,15]

The difference between umbilical endometriosis and other differentials like keloids, umbilical hernia, omphalitis granuloma, seborrhic keratosis, umbilical polyp etc., is that there is no cyclical bleeding in all these cases.

The treatment involves a multidisciplinary team approach as was done for this patient.[2,6,12]

The plastic surgeons recommended complete excision of the umbilical mass.

Open surgery was done through a midline subumbilical incision. The incision was extended cephalad round the umbilicus, about 1cm from the umbilical mass.

Histology report confirmed umbilical endometriosis. The adhesion bands holding some part of the small intestine to the abdominal wall and pelvic side walls were lysed. Also a thick adhesion band, about 1cm wide, connecting the fundus of the uterus to the abdominal wall, was also separated. Cross section of the band showed yellow and jelly like substance in the central part of the bank. This is likely the transmission link for the endometriotic tissue.

Laparoscopic surgery would have been the ideal method of treatment [2,4,5], but due to dearth of this facility, open surgery was done. Other methods of treatment include expectant management, if the woman is close to her menopause, she can receive expectant management. Medical management can be given. The use of Estrogen antagonists or progestogens are used. Oral contraceptive pills are also used to decrease dysmenorrhea. High intensity focused ultra sound (HIFU) can be used. Here ultrasound is targeted at the abnormal cells to destroy them.[4,5,14,15]

The prognosis for this patient appears good, because the first post-operative menses was pain free and there was no bleeding from the umbilicus. She is still on follow up.

CONCLUSION

Endometriosis is a condition that affects young healthy women and can result in infertility, chronic pain and poor quality of life.[1,3,4,5] Umbilical endometriosis, although rare, can be a long time complication of pelvic surgeries, especially when the endometrium was breached.

This was the findings in the two cases recorded in our facility. There should be a high index of suspicion of endometriosis when a young woman presents with bleeding from unusual sites.

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Conflict of Interest:

There was no conflict of Interest

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