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Case report

ENDOMETRIOSIS OF APPENDIX IN WOMEN PRESENTING WITH RIGHT LOWER ABDOMINAL PAIN

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ABSTRACT

Endometriosis is a well known gynaecological condition associated with infertility and chronic pelvic pain. Review of literature shows that endometriosis can affect any tissue in the body, including the appendix. Here we report a case of pelvic endometriosis involving the vermiform appendix in a 45 years old multiparous woman. When women of the reproductive age present with recurrent lower abdominal pain on the right side, endometriosis of the appendix should also be considered. At the time of surgery appendix should be inspected and removed; especially in the presence of pelvic endometriosis.

Keywords: Extra genital endometriosis, Appendix, Right lower quadrant pain

INTRODUCTION

Endometriosis is a well known gynaecological condition associated with infertility and chronic pelvic pain. Review of literature shows that endometriosis can affect any tissue in the body, including the appendix.[1] Recurrent chronic right lower abdominal pain is the most common presentation. Endometriosis of the appendix should be suspected and should be included in the differential diagnosis in young women presenting with right lower quadrant pain or symptoms of acute appendicitis. This case describes endometriosis of the appendix as a possible cause of chronic right lower quadrant pain in a multiparous woman. .

CASE REPORT

45 years old, para 2 presented with lower abdominal pain of 3 years duration and was severe in the previous 6 months. She also complained of congestive dysmenorrhoea and scanty periods for the past 3 months. The pain was intermittent with a dull ache and was more on the right side. Initially, the pain was not related to her periods. However, in the last 3 months the pain on the right side was very severe, more so in the pre-menstrual and menstrual phase. She also suffered from non-specific symptoms such as dyspepsia and abdominal bloating. She was seen by the medical Gastro-Enterologist and GI tract problems were ruled out. She also suffered from on and off painful micturition. There was no history of fever or discharge per vaginum. She was married for 25 years, has delivered two children vaginally and the last childbirth was 18 years ago. She has used IUCD for contraception for nearly 10 years and got it removed two years ago.

On examination, there was mild bloating of lower abdomen with vague fullness and tenderness in the right iliac fossa. On speculum examination, the cervix was congested and there was a small endocervical polyp measuring 1 cm. in size. On bimanual pelvic examination, the uterus was retroverted, bulky, and the left fornix was free. Through the right fornix,in close association with the uterus, a tender cystic mass measuring 10 cms. in size was palpable. Per rectal examination, the tender mass was felt on the right

side and there was no nodularity in the pouch of douglas (POD). A provisional diagnosis of right adnexal mass probably due to pelvic inflammatory disease/appendicitis/ ovarian mass was made.

Investigations showed that all her biochemical and haematological parameters were within normal except the leukocyte count, which was 14,000/cmm. The CA 125 level was 10 miu. An ultrasound examination showed a complex mass with internal echoes measuring 6 cms. in diameter in the right adnexal region. There was minimal free fluid in the abdomen. The CT imaging also showed a right adnexal mass with loculated fluid collection in the POD. With the above findings she was taken up for laparotomy with adequate bowel preparation. On opening the abdomen there were dense omental adhesions between the parietal wall, uterus and the anterior surface of the bladder. There was haemorrhagic fluid collection anterior to the bladder and in POD. There were plenty of small bowel adhesions and were released. The uterus was normal in size, the tubes were congested and the ovaries were enlarged and were fixed in the POD. On releasing, the ovaries discharged chocolate coloured material and a diagnosis of endometriosis was made. Total hysterectomy with bilateral salpingo – oophorectomy was carried out. As there was extensive bowel dissection Surgeon was called in to check the integrity of the bowel. During the systematic inspection of the bowel, the appendix was found to be enlarged with a cystic mass of 5 cms in size at the tip. Therefore, appendicectomy was also carried out. Her post-operative period was uneventful. Histopathology of the specimen was reported as endometriosis of the tubes and ovaries. Excised appendix was reported as sub acute appendicitis with features of endometriosis with mesoappendix also showing evidence of endometriosis. [Fig. 1]

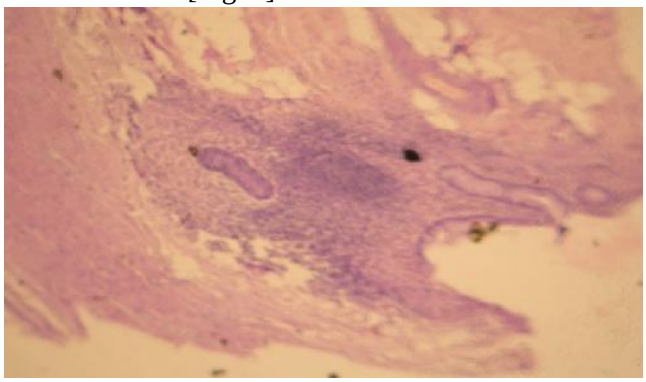

Fig1: Picture showing endometrial gland within the muscularis

DISCUSSION

Endometriosis of the gastrointestinal tract is rare, and can present with a wide spectrum of symptoms. The Gastrointestinal tract is affected in nearly 12% of patients with pelvic endometriosis, of which 72% are in the recto-sigmoid region, followed by rectovaginal septum in 13%, small bowel in 7%, caecum in 4% and appendix in 3% of cases. [2] The occurrence of appendiceal endometriosis without evidence of pelvic endometriosis is rare and is reported to be between 0.05% and 0.8%. However, in women with pelvic endometriosis, the prevalence of appendiceal endometriosis is estimated to be approximately between 0.8% - 2.8%. [3, 4] When endometriosis involves the appendix, there is acute inflammation of the appendix due to partial or complete occlusion of the lumen with endometriosis. As a result, chronic right lower abdominal pain is the most common symptom and nearly one third of them eventually present with symptoms of acute appendicitis. [5,6] Endometriosis can also present as mucocele formation or appendicular mass. Other unusual presentations are intussception of the appendix and the perforation. [7, 8]

Appendiceal endometriosis patients can be categorised into four groups in terms of symptomatology [9]

1. Patients who present with acute appendicitis
2. Patients who present with appendix invagination.
3. Patients manifesting atypical symptoms such as abdominal colic, nausea and melena.
4. Patients who are asymptomatic.

Based on the history it is difficult to diagnose endometriosis of the appendix. In our patient though the possibility of appendicitis was thought of, because of her pelvic symptoms, Gynaecological condition was a primary diagnosis. Leucocytosis with predominance of polymorphonuclear leukocytes accompanies acute appendicitis in most cases. In our case, though it was not an acute manifestation, the leukocyte count was elevated. There are no specific features on USG and CT to diagnose endometriosis of the appendix. Findings are similar to that of acute appendicitis with dilated fluid – filled appendix.[1,10] Appendiceal endometriosis is often seen in patients with ovarian endometriosis. Our patient also had concomitant pelvic endometriosis with concomitant ovarian involvement. Muscular and seromuscular

involvement is seen in two-thirds of cases, while the mucosal surface is involved in one-third of patients. Our case presented with a nodule at the tip of the appendix and the sero-muscular layer was involved.

Though, our patient presented with recurrent attacks of incapacitating lower abdominal pain, the pain was not related to her menstrual cycle initially, therefore, endometriosis of the appendix was not suspected pre-operatively. As in other reports involvement of the appendix with endometriosis was made only on histo-pathological examination. However, the patient's persistent right lower quadrant pain made us inspect the appendix for possible concomitant pathology and appendicectomy was proceeded with because of the nodule. Incidental appendicectomy during surgical treatment of pelvic endometriosis is controversial. In one study, routine appendicectomy during laparoscopic treatment of ovarian endometriosis showed microscopic evidence of endometriosis in 13.2% of patients. [11] Though routine removal is controversial, pre-operative counselling and obtaining consent for appendicectomy is important. As well as appendicectomy should be carried out while treating patients with recto-sigmoid endometriosis, as the involvement of appendix in these cases is high.[12] In our case , as one of the differential diagnosis was appendicitis, pre-operative consenting was taken for appendicectomy. In cases where, there was incidental diagnosis of endometriosis of the appendix, further gynaecological assessment and post-operative follow up are important.

CONCLUSION

Endometriosis of the appendix is rare. Pre-operative diagnosis is difficult, and the definitive diagnosis is usually established following histopathological examination of the excised tissue. Recurrent chronic right lower abdominal pain is the most common presentation and pain may be occasionally cyclical. Endometriosis of the appendix should be suspected and should be included in the differential diagnosis in young women presenting with right lower quadrant pain or symptoms of acute appendicitis. While treating cases of pelvic endometriosis surgically, appendix should always be inspected and incidental appendicectomy should be considered.

Conflict of Interest: Nil

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