

Two Unusual Causes of Acute and Chronic Left Iliac Fossa Pain in the Gynaecology Clinic

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Abstract

Three patients attended our gynaecology clinic with left iliac fossa pain for second opinion. One patient had sharp pain which started two weeks previously. It improved slightly over one week before getting worse and unbearable. Clinical examination and routine investigations including ultrasound and CT scanning were normal. Laparoscopic examination showed two abnormal looking appendices epiploicae which were excised. One was darker and firm and the other was large with few hyperaemic areas and bruised pedicle indicating recent torsion. Appearance and consistency of the two appendages most likely reflected the cause of the two pain episodes respectively. Histological assessment showed necrotic fat tissue with no evidence of inflammatory cells. The patient felt well thereafter and was discharged from the clinic. The other two patients presented with intermittent left iliac fossa pain for 3 and 6 years respectively. Both patients noticed increased pain frequency and intensity with progressive weight gain. Diagnostic laparoscopy showed a large irregular gap in the left broad ligament in one patient and a small fenestration in the same ligament in the other one. Left salpingectomy to disrupt the medial margin of the large gap and laparoscopic suturing of the small fenestration were done in the two patients respectively. The surgical objective was to prevent bowel herniation through these gaps which was the most likely cause of pain. Both patients recovered well and had no further symptoms. Accordingly, patients with acute or chronic pelvic or lower abdominal pain of unidentifiable aetiology should be subjected to diagnostic laparoscopy and further surgical intervention as necessary.

Keywords: Pelvic pain; Appendices epiploicae; Broad ligament fenestration

Introduction

Most patients presenting to the gynaecology outpatient clinics with pelvic pain are ultimately diagnosed with endometriosis, adenomyosis or pelvic inflammatory disease. However, it is not unusual for many patients with non-gynaecological lower abdominal or pelvic pain to attend the gynaecology outpatient clinic for second opinion. Many of them had different medications and few of them might have had surgery as well. Laparoscopy plays a major role in the diagnosis and management of these cases. However, lack of surgical expertise, bowel related problems and genuine lack of pelvic pathology are important causes of negative laparoscopies. Two uncommon causes of pelvic and lower abdominal pain are inflammation or torsion of the appendices epiploicae and bowel herniation through broad ligament fenestrations. These two problems should be considered during laparoscopic examinations especially in the absence of other visible pathologies.

Normally everyone has 50-100 appendices epiploicae in two parallel rows on opposite sides along the colon. Each appendage is usually 1 to 2 cm thick and 2 to 5 cm long, although they may be larger. Torsion of any of these appendages may lead to necrosis and pain which usually resolves spontaneously undiagnosed. It was described as early as 1941 [1] and confirmed by many reports since [2-5]. Such incidents were more common in obese women and those over the age of 40 years, though any age group could be affected. Generally, there were no other associated symptoms. Laboratory investigations were usually normal but might show slight leucocytosis [3,4]. However, many patients may have tenderness overlying the site of the affected appendage. This may confuse the diagnosis with appendicitis or diverticulitis depending on pain location and other associated symptoms. Such cases are not usually seen in gynaecology clinics and may pass undiagnosed when encountered. It has been recommended that appendicitis epiploicae should be considered in any patient with localized, sharp or acute abdominal pain not associated with other symptoms or typical laboratory results [5].

The other uncommon condition which may be seen in gynaecology

clinics is related to bowel herniation through a broad ligament gap. It was reported in 4-7% of all internal hernias [6] with the ileum being the most common viscus to herniate. Still, herniation of the colon or an ovary have also been reported [6-11]. Such fenestration could be congenital or iatrogenic. Different case reports and classification systems have been published before. One classification depended on the fenestration being complete or incomplete [7], and the other one was based on the location of the gap within the broad ligament [8]. Preoperative diagnosis is usually difficult because of the non-specific symptoms and imaging limitations [9]. However, CT scanning could be useful to show bowel dilatation proximal to the obstruction site. Occasionally, such peritoneal defects could be found incidentally during diagnostic laparoscopy and should be sutured to prevent future bowel strangulation [12].

Case Series

In this article I am presenting three patients who attended the gynaecology clinic with left iliac fossa pain. The two pathologies involved are not common, but they gave examples of the types of non-gynaecological cases that might be seen by gynaecologists.

Case 1

A 38-years-old para 3+0 woman presented at the clinic with left iliac fossa pain for a second opinion. It started as sudden sharp pain 2 weeks previously but eased a little over a period of one week before

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recurring and becoming severe and unbearable. She had no other associated symptoms. Previous urine microscopy and culture, full blood count, C-reactive protein (CRP) as well as ultrasound and CT scan examinations of her abdomen and pelvis were reported as normal. At presentation, her body temperature and pulse rate were normal. Abdominal examination revealed a soft abdomen with moderate tenderness in the left iliac fossa and suprapubic area. There was no mass and bowel sounds were normal. Repeating few investigations showed no leucocytosis and normal CRP. Transabdominal and transvaginal ultrasound scan examinations were unremarkable.

Diagnostic laparoscopy was done as an emergency because of the duration of the pain and its intensity at presentation. It showed normal uterus, ovaries and fallopian tubes. The rest of the pelvis and upper abdominal cavity were unremarkable. Manipulation of the bowel showed a normal appendix. Two appendices epiploicae looked abnormal. One was darker than normal and had firm consistency suggestive of previous complication (Figures 1 and 2). The other was large with few hyperaemic areas and bruised pedicle indicating recent torsion (Figure 3). Both appendices were easily excised laparoscopically. The patient recovered well and went home on the same day. Histopathological assessment showed necrotic fat tissue with no evidence of inflammatory cells. She was seen in the clinic one week after surgery and six-weeks later. She made a good recovery and was

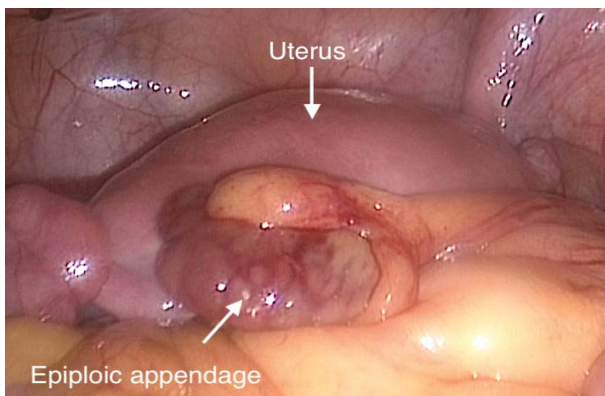


Figure 1: Shows epiploic appendage which looked almost totally inflamed or infarcted with no evidence of twisting or torsion of its pedicle. Nevertheless, histopathological examination showed necrotic fat cells with no inflammatory reaction.



Figure 2: Shows the same appendage depicted in Figure 1 after being removed. Note its firm almost solid look. It did not dent when held with the pair of graspers.

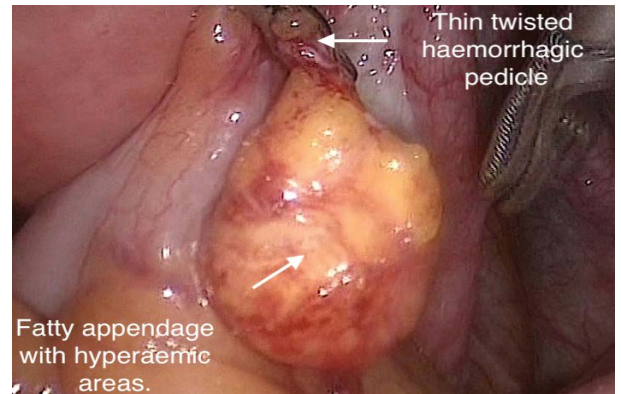


Figure 3: Shows a large appendage still attached to the bowel with a thin twisted haemorrhagic pedicle. It looked fatty with wide spread hyperaemic areas, possibly related to a recent torsion.

given an open appointment to attend the clinic if she had any further symptoms. She was also advised regarding the possibility of having a similar incident in the future.

Case 2

A 34-years-old para 3+1 woman attended the clinic because of chronic left iliac fossa pain for the previous 3 years following her last delivery by caesarean section. She failed to shed any weight after delivery and felt her pain got worse and more frequent as she gained more weight. All her investigations were normal including urine microscopy and culture, full blood count, CRP and ultrasound scan examinations. A CT scan of her abdomen and pelvis done 6 months previously was also reported normal. She had different medications in the past with no improvement in her symptoms.

Diagnostic laparoscopy revealed a large irregular gap in the left broad ligament with the ovary seen through (Figure 4). The gap included the whole area between the left round ligament and the left fallopian tube. The left ovary was partly attached to the left pelvic sidewall which showed some old scar tissue. Otherwise, the pelvis was unremarkable. The gap was too wide to be approximated. Accordingly, left salpingectomy was done to remove the medial boundary of the gap and to allow free movement of the bowel without herniating through it. She went home on the same day. She had no further symptoms and was discharged from the clinic with an open appointment to report any further symptoms.

Case 3

A 21-years-old para 0+0 woman attended the clinic for second opinion with left iliac fossa pain for approximately 6 years. It was sharp and intermittent with no specific pattern. She had no urinary or bowel symptoms. Nevertheless, she was treated in the past for ovulation pain and irritable bowel syndrome on different occasions. She also noticed that her symptoms got worse over time as she gained more weight. All previous investigations including urine and blood tests, ultrasound scan examinations, colonoscopy, CT scanning as well as diagnostic laparoscopy were reported normal.

Second look diagnostic laparoscopy was unremarkable except for a small circular gap with a smooth boundary in the left broad ligament between the round ligament and fallopian tube (Figure 5). It was sutured laparoscopically. She went home on the same day and was followed up in the outpatient clinic for six months. She remained asymptomatic

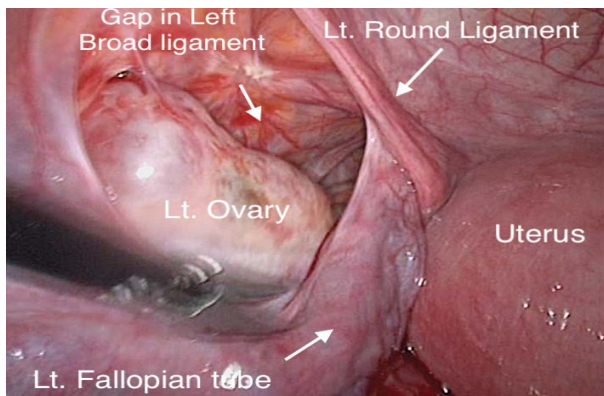


Figure 4: Shows a very large gap in the left broad ligament. The left ovary was partly attached to the left pelvic side wall which looks scarred as well. In this case herniation of bowel or even the left ovary might have been the cause for the intermittent pelvic pain.

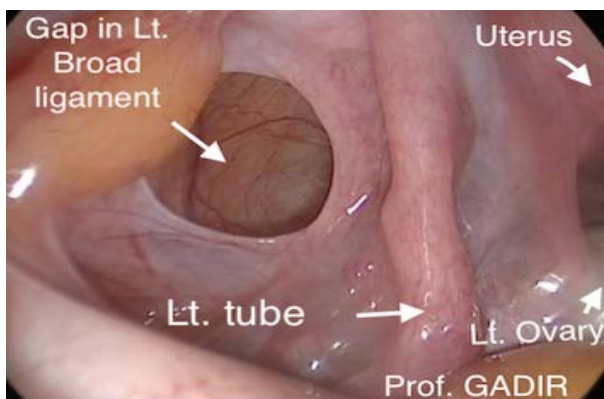


Figure 5: Shows a small rounded gap in the left broad ligament, with the omentum stuck on the lateral side. The pelvis looked normal otherwise.

and was discharged from the clinic with an open appointment to report any further symptoms.

Discussion

Appendicitis epiploicae is a self-limiting acute problem but could be recurrent in some cases. The patient in the first case report appeared to have had two different related incidents as represented by the biphasic pain attacks and the different colour and consistency of the two appendages. It was noticeable during laparoscopy that her colonic appendages were larger than usual, as represented by the one shown in Figure 3. Accordingly, she was advised regarding the possibility of similar incidents in the future.

On the other hand, broad ligaments defects could be congenital or acquired. The congenital type might result from spontaneous rupture during embryonic life of cystic remnants of the mesonephric or müllerian ducts within the broad ligaments [7]. On the other hand, the acquired type might be related to endometriosis, pelvic inflammatory disease, previous pregnancy and previous surgery. The patient documented in case number 2 was parous and had previous caesarean section and the defect was large and irregular. Accordingly, it was mostly a secondary type. Only the left tube was removed sparing the ipsilateral ovary, unlike Demir and Scoccia [6] who removed the ovary as well. On the other hand, the defect reported in case report number

3 was small, circular and had regular outline. Besides, the patient had none of the possible risk factors related to the secondary type. So, it was most likely congenital. As the gap was small, it was only sutured as reported previously by Bangari and Uchil [13]. The small size of the gap might be the reason why it had been missed in a previous laparoscopic examination.

Disappearance of symptoms after opening the gap in case number 2 and suturing it in case number 3 suggested that the pain was mostly related to intermittent bowel herniation through these peritoneal defects. It was interesting to note that both patients related increased pain frequency and intensity to weight gain. General and visceral obesity might have been the triggering factors which led to bowel herniation and aggravation of their symptoms. This might confirm weight gain as a risk factor in such cases. To prevent bowel obstruction and strangulation, such defects should be considered in the differential diagnosis of persistent pelvic or lower abdominal pain and should be repaired if found incidentally [13]. This is specially so in the absence of any clinical or helpful diagnostic features.

Conclusion

These three case reports showed that gynaecologists dealing with acute and chronic pelvic pain should widen their scope to include cases not commonly seen in the gynaecology clinics. This is especially so if clinical and routine investigations did not reveal any diagnostic clues. In such cases laparoscopy should be used for thorough examination of the whole abdomen and pelvis. Both gynaecological and nongynaecological problems should be explored and dealt with as necessary with the appropriate team.

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