Case report:

Appendicealendometriosis: A Rare Case Report

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Abstract

Appendix is a relatively small anatomic compartment with the diversity of pathologic processes that may arise from it. Appendicitis is the most common entity in appendix.Appendiceal endometriosis is rare, but it can occur. Here, we are presenting a case of a29 year female presented with recurrent abdominal pain with increasing total leucocyte count. Ultrasound abdomen and pelvis showed acute appendicitis and ovarian cyst. Emergency appendicectomy was performed which confirmed on histopathology as appendiceal endometriosis.

Key words : appendix, endometriosis, appendicitis, infertility

Introduction

Endometriosis means ectopic endometrial tissue is present outside the uterine cavity.[1] Patient usually presents with acute or chronic abdominal pain and infertility. Diagnosing it preoperatively is difficult. Histopathology provides the definitive diagnosis.However, laproscopy is considered choice for diagnosing and surgical treatment of endometriosis.[2]Here we present the case of young female who presented with acute abdominal pain with history of recurrent abdominal pain and infertility which on histopathology was confirmed as appendiceal endometriosis.

Case report

A 29 year old female, who presented with acute abdominal pain,had history of recurrent abdominal pain. She was married 6 years back and was anxious to conceive. Menstrual history was unremarkable. She had no fever. Her vitals were stable. Cardiovascular system and respiratory system examinationwas unremarkable. Per abdomen examination showed tenderness in right iliac fossa, guarding in the lower abdomen with positive rebound tenderness. Haematological parameters showed increasing total leucocyte count. Urine pregnancy test was negative. Ultrasound suggested provisional diagnosis of acute inflammed appendix and ovarian cyst. Hence, emergency appendicectomy and cystectomy was performed.

Histopathology

Appendix on gross examination measured 8x1 cm with dull outer surface.

Microcopically,appendix showed fibrosed wall with lymphoid hyperplasia with endometrial glands as shown in arrow.[Fig1A]Muscularispropria and serosa showed endometriotic tissue with surrounding haemorrhage as shown in arrow. [Fig1B,C] Focal fragments of omental tissue with reactive mesothelial proliferation were also notedas shown in arrow. [Fig1D]

Ovarian cystectomy specimen measured 3x2 cm and microscopically showed haemorrhagic cyst.

Histopathological features are consistent with appendiceal endometriosis with localized peritonitis.

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Discussion

Endometriosis is common in pelvic organs but its appendiceal involvement is rare. It usually presents with chronic pelvic pain, dysmenorrhea and infertility.[3]Intestinal endometriosis in women are asymptomatic and are brought to clinicians notice only if there is abdominal pain or mass or intestinal obstruction.[4]

Appendiceal endometriosis is seen in only 2.8% of patients with endometriosis.[5] Appendiceal endometriosis presents with appendicitis, mucocele of appendix and appendicular mass mimicking neoplasm. Perforation of appendix is uncommon but can occur in 1st two trimesters of pregnancy.[6, 7]

In our case patient had history of recurrent lower abdominal pain associated with primary infertility but the menstrual cycles were regular. Preoperatively, appendicitis was the suspected diagnosis until endometriosis was definitively proved by histopathological examination.[8]Appendiceal endometriosis patients have significant decrease in quality of life due to chronic lower abdominal pain and thus appendicectomy provides long term symptom resolution.[9]

In a study of 200 consecutive endometriosis operations with routine appendicectomy, 3 cases of appendicealendometriosis were proved by histopathological examination.[10]

Another study of 106 ovarian endometriosis cases with routine appendicectomy showed gross abnormality in 3.3% of cases and was microscopically proved in 13.2% of cases.[11]In our patient laproscopicappendicectomy and cystectomy were performed. However, gross inspection of appendix was dull while microscopy proved appendiceal endometriosis.

In cases, where H&E stain fails to demonstrate endometrial tissue, appendiceal endometriosis can still be suspected by marked increase in number of mast cells in muscularispropria. This condition is called as catmenial appendicitis.

Reason behind the cause of infertility in endometriosis is still not known. However, laproscopy combined with medical treatment improves fertility.[12]Though appendicectomy can be considered in pelvic endometriosis it is controversial.[10,11] However in cases of incidental appendicectomy preoperative counselling and consent for appendicectomy is important.[5]

Thus, to look for appendiceal pathology should not be neglected in young female patient who presents with recurrent abdominal pain and infertility.

Conclusion

Appendiceal endometriosis is very rare but it can occur and mimic appendicitis. Thus, it should always be considered as one of the differential diagnosis of young woman with recurrent lower abdominal pain with history of infertility.

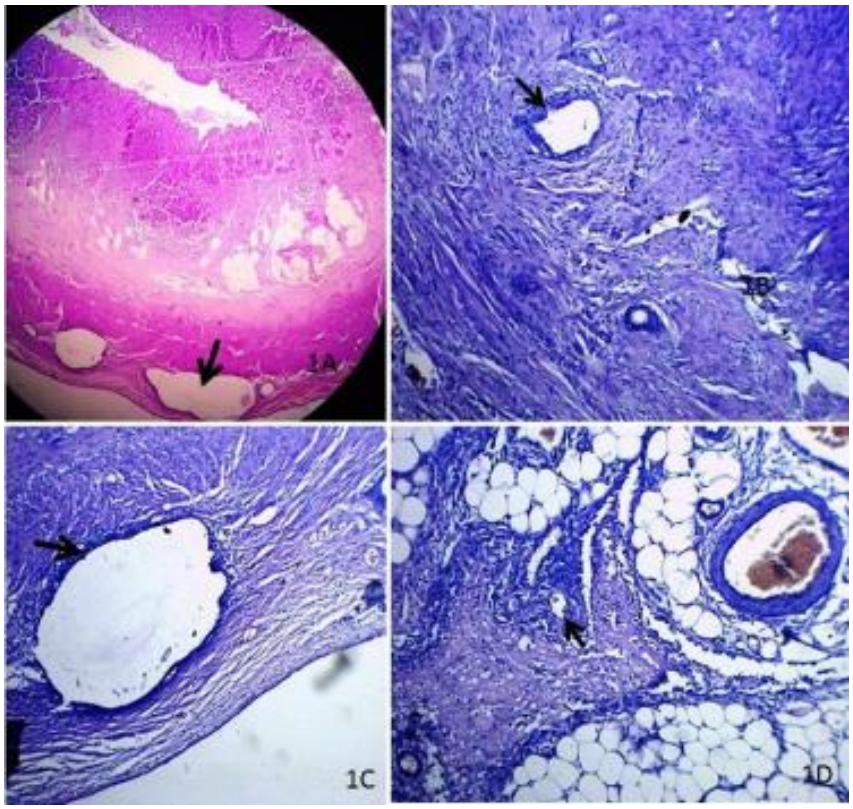

Fig 1A- Appendix showing fibrosed wall with lymphoid hyperplasia with endometrial glands as shown in arrow.[100X,H&E]

Fig1B,C- Muscularispropria and serosa showing endometriotic tissue with surrounding haemorrhage as shown in arrow.[100X,H&E]

Fig1D- Focal fragments of omental tissue with reactive mesothelial proliferation as shown in arrow. [100X,H&E]

References

1. Khoo JJ, Ismail MS, Tiu CC. Endometriosis of the appendix presenting as acute appendicitis. Singapore Med J 2004;45:435–6.

2. Idetsu A, Ojima H, Saito K, Yamauchi H, Yamaki E, Hosouchi Y, et al. Laparoscopic appendectomy for appendiceal endometriosis presenting as acute appendicitis: Report of a case. Surg Today 2007;37:510–3.

3.Offodile A, Hodgin JB, Arnell T. Asymptomatic intussusception of the appendix secondary to endometriosis. Am Surg 2007;73:299–301.

4. Yantiss RK, Clement PB, Young RH. Endometriosis of the intestinal tract: A study of 44 cases of a disease that may cause diverse challenges in clinical and pathological evaluation. Am J SurgPathol2001;25:445–54.

5. Gustofson RL, Kim N, Liu S, Stratton P. Endometriosis and the appendix: a case series and comprehensive review of the literature. FertilSteril2006;86:298–303.

6. Driman DK, Melega DE, Vilos GA, Plewes EA. Mucocele of the appendix secondary to endometriosis. Report of two cases, one with localized pseudomyxomaperitonei. Am J ClinPathol2000;113:860–4.

7. Phupong V, Rungruxsirivorn T, Tantbirojn P, Triratanachat S, Vasuratna A. Infected endometrioma in pregnancy masquerading as acute appendicitis. Arch GynecolObstet 2004;269:219–20.
8. Stefanidis K, Kontostolis S, Pappa L, Kontostolis E. Endometriosis of the appendix with symptoms of acute appendicitis in pregnancy. ObstetGynecol1999;93:850.
9. Barrier BF, Frazier SR, Brennaman LM, Taylor JC, Ramshaw BJ.
Catamenialappendicitis. ObstetGynecol 2008;111:558–61.
10. Wie HJ, Lee JH, Kyung MS, Jung US, Choi JS. Is incidental appendectomy necessary in women with ovarian endometrioma? Aust N J Z ObstetGynaecol2008;48:107–11.
11. Harper A J, Soules MR. Appendectomy as a consideration in operations for endometriosis. Int J GynaecolObstet 2002;79:53–54.
12. Ozkan S, Murk W, Arici A. Endometriosis and infertility: epidemiology and evidence-based treatments. Ann N Y AcadSci2008;1127:92–100.