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Appendico-Ovarian Adhesion Even in Early Appendicitis: A Case Report

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ABSTRACT:
Abdominal pain is a common complaint among children and adolescents.Acute appendicitis is among the most common surgical causes of abdominal pain in them. The typical presentation consists of progressive abdominal pain associated with gastrointestinal symptoms, fever, localized right lower quadrant tenderness, and elevation of inflammatory markers. However, clinical presentations may vary considerably.
The evaluation of abdominal pain in adolescent females presents an additional diagnostic challenge because gastrointestinal and gynecological disorders may have overlapping clinical features. Laparoscopy can therefore provide important diagnostic as well as therapeutic benefits by allowing direct examination of the appendix and pelvic organs(1).
We report a case of a 13 year old female with recurrent abdominal pain and subtle contrast enhanced computerized tomography (CECT) abdomen findings suggestive of appendiceal inflammation,in whom laparoscopy revealed an unexpected adhesion of the appendix to the right ovary.

Keywords: Appendicitis; adolescent girl; right iliac fossa pain; laparoscopy; appendico-ovarian adhesion.

I. CASE PRESENTATION:

A 13-year-old girl presented with recurrent episodes of right lower abdominal pain for one month. There was no history of fever, nausea, vomiting, anorexia, abdominal distension, altered bowel habits, or urinary symptoms.There was no significant past medical or surgical history. Her menstrual history was normal, and there was no history suggestive of dysmenorrhea or other menstrual abnormalities. On examination, the patient was hemodynamically stable. Abdominal examination revealed localized tenderness in the right iliac fossa. There was no guarding, rigidity, rebound tenderness, or palpable abdominal mass.Laboratory investigations, including complete blood count and C-reactive protein, were within normal limits.CECT abdomen demonstrated a mildly prominent appendix with a maximum diameter of 6.5 mm. Mild periappendiceal fat stranding was noted, along with reactive ileocolic lymph nodes. There was no appendicolith, periappendiceal collection, abscess, or other significant intra-abdominal abnormalities.In view of the recurrent nature of the pain, persistent right iliac fossa tenderness, and radiological findings suggestive of mild prominents of appendix, the patient was taken up for laparoscopic appendicectomy ..Laparoscopy revealed mildly inflamed appendix and tip of the appendix was found adherent to the right ovary(fig:1). The adhesion was carefully released.Laparoscopic appendicectomy was done, and the specimen was sent for histopathological examination. Both ovaries and fallopian tubes were otherwise normal in appearance.Histopathological examination demonstrated inflammatory changes consistent with appendicitis.The postoperative period was uneventful. The patient recovered well and was discharged in stable condition. At follow-up, she remained asymptomatic, with no recurrence of abdominal pain.

II. DISCUSSION:

Appendicitis remains an important differential diagnosis in children and adolescents presenting with abdominal pain. The close anatomical relationship between the appendix and the right adnexa is particularly relevant in adolescent girls. Appendix may lie in close proximity to the right ovary and fallopian tube, allowing inflammatory processes originating in the appendix to involve adjacent pelvic structures(2).
Our patient had recurrent abdominal pain for 1 month with localized right iliac fossa tenderness but no fever,vomiting,anorexia or bowel symptoms.Both CBC and CRP were normal. CECT abdomen findings were also subtle with mildly prominent appendix measuring 6.5mm, mild

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periappendiceal fat stranding.Nevertheless,laparoscopy revealed an unexpected appendico-ovarian adhesion, with the tip of the appendix adherent to the right ovary.

The discrepancy between the relatively mild preoperative findings and the presence of an appendico-ovarian adhesions is noteworthy. Appendico-ovarian adhesion and appendico adnexal adhesions have been reported in association with complicated appendicitis like perforation and abscess formation(3).

Appendico-ovarian adhesion in these settings therefore raises the possibility that even relatively localized appendicular inflammation may produce clinically significant adhesion when the appendix is anatomically positioned adjacent to the ovary.

The significance of these findings lies in the potential consequences of inflammatory pelvic adhesions in adolescent girls.Pelvic adhesions involving the ovary or fallopian tube may distort normal tubo-ovarian anatomy and potentially interfere with tubal function. Pelvic adhesion is recognized as a possible contributor to female infertility(4).

Therefore this case highlights the importance of careful evaluation of the adnexa during laparoscopy in girls undergoing appendicectomy. When the appendix is found to be adherent to the ovary or fallopian tube, careful adhesiolysis is essential given the long term reproductive implications of pelvic adhesive disease.In girls there is an additional point for emphasizing the need for appendicectomy even in early appendicitis, due to risk for adhesion formation and possible effect on future fertility.

III. CONCLUSION:

Appendico-ovarian adhesion is an unusual but clinically relevant intraoperative finding in girls with appendicitis.In our case ,significant appendico-ovarian adhesion was observed without much supportive radiological findings.

Laparoscopy allows simultaneous assessment of the appendix and pelvic organs and may reveal unexpected anatomical or inflammatory relationships.

This case highlights the potential importance of early recognition and appropriate management of appendicitis in girls .

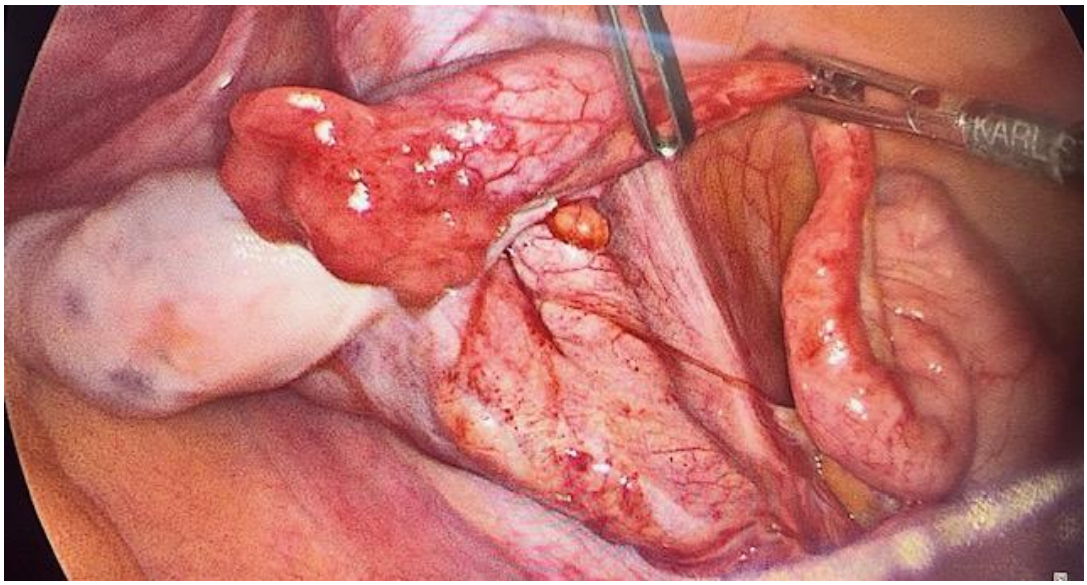

FIG 1: Laparoscopic finding showing the appendix tip adherent to the right ovary.

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