

# Benign fimbrial serous cystadenoma: an unusual cause of right iliac fossa pain in a young girl

## Introduction

Gynaecological pathology is a rare but important cause of abdominal pain in young female children and adolescents. This article reports a case of a 14-year-old girl who presented to the emergency department with abdominal pain. At laparotomy a complex tortored mass was found arising from the fimbriae of the right fallopian tube. Histological diagnosis confirmed the diagnosis of a benign tortored fimbrial serous cystadenoma. This case highlights the importance of fallopian tube pathology as a cause for right iliac fossa pain in young females. Prompt surgical intervention should be considered when the fallopian tube is at risk to prevent loss of future fertility.

## Discussion

Abdominal pain is a common problem in childhood and is frequently seen in the emergency department. Diagnosis is often difficult and frequently no cause is found. In girls, abdominal pain associated with pelvic tumours is a rare but important differential diagnosis. Patients with pelvic

**Figure 1. Ultrasound demonstrating a 49 mm diameter unilocular cyst thought to arise from the right ovary.**



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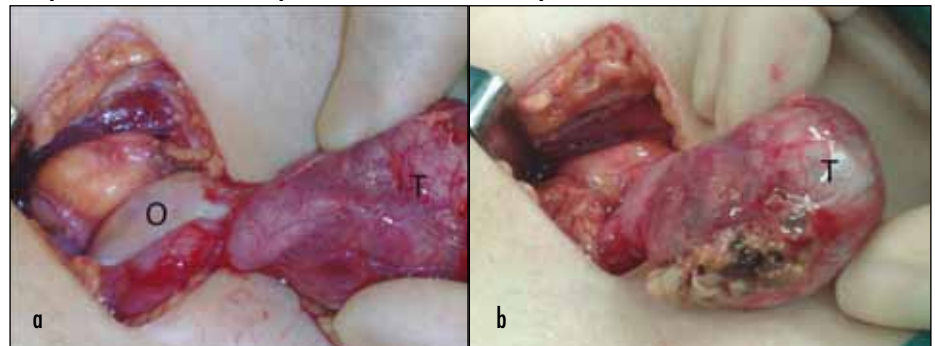
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tumours commonly present with chronic pelvic pain or a pelvic mass. Rarely, they may present with acute abdominal pain, simulating appendicitis.

Tumours of the fallopian tube are rare. The majority of fallopian tube tumours are benign and include cystadenomas and

adenofibromas. Primary malignant fallopian tube tumours make up only 1% of gynaecological malignancies (Schneider et al, 2000). Patients may present with tumours of the fallopian tube over a wide age range, although the average age is approximately 60 years (Alvarado-Cabrero et al, 1997).

**Figure 2. a and b. A heterogeneous tortored right fimbrial mass with a normal ipsilateral fallopian tube and ovary. O refers to normal ovary, T refers to tortored fimbrial cyst.**



## Case Report

A 14-year-old girl presented to the emergency department with a 1-week history of right iliac fossa pain of increasing severity and associated non-bilious vomiting. Three previous episodes of lower abdominal pain had occurred during the past year but this was the first episode of sufficient severity to require admission. There were no other medical problems. Clinical examination of her abdomen revealed right iliac fossa tenderness but no palpable mass. She was mid menstrual cycle at the onset of pain and a pregnancy test was negative. Blood tests including a full blood count and inflammatory markers were all within the normal range. A transabdominal ultrasound scan demonstrated a large (45x49x53 mm), thick-walled (5 mm) cyst thought to arise from the lower border of her right ovary (Figure 1). Colour Doppler imaging demonstrated a normal blood supply to the right and left ovary, uterus and the endometrium. As her symptoms resolved with conservative treatment she was discharged with follow up planned at 4 weeks.

She represented 1 week later with worsening bouts of lower abdominal pain. Clinically, she had tenderness with guarding and a mass was palpable in the right iliac fossa. A repeat transabdominal scan demonstrated similar findings to the previous ultrasound scan and she was referred for a paediatric surgery opinion. An exploratory laparotomy was performed, which revealed a complex tortored mass 25x35x25 mm arising from the fimbriae of the right fallopian tube (Figure 2). The mass was completely excised from the remaining normal fallopian tube and sent to histology. A cyst measuring 5 mm was also noted over the left ovary and excised. The uterus, external genitalia, vaginal introitus and appendix appeared normal.

Histology revealed a heterogeneous cyst with a fibrous wall lined by cuboidal to columnar cells. It contained complex structures resembling detached fimbriae. Additionally focal calcifications and areas of infarction and necrosis were seen. The report concluded that this mass was a benign tortored fimbrial serous cystadenoma with some features suggestive of endometriosis. The left ovarian specimen was reported as a simple paratubal cyst.

The patient made an uneventful postoperative recovery and is well at follow up.

Only two previous cases of benign serous cystadenomas of the fallopian tube have been described and these were in adult women (Alvarado-Cabrero et al, 1997; Lee and Wang, 2001). To the authors' knowledge no prior cases have been reported in the paediatric population. Although torsion of the fallopian tube has been reported in the presence of a benign cystadenoma of the fallopian tube (Lee and Wang, 2001) no previous reports in the paediatric or adult population have been found of a torsed benign serous cystadenoma of the fimbriae without fallopian tube torsion.

## Conclusions

This case highlights a rare but important differential diagnosis for abdominal pain in girls. Gynaecological causes of lower abdominal pain in young females should be carefully evaluated with ultrasound or computed tomography (Ferrere and Whitman, 2000) and prompt surgical intervention should be considered in cases where the fallopian tube is threatened to preserve future fertility. Although the majority of fallopian tube tumours are benign, the potential for malignancy should not be overlooked. **BJHM**

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