

## Pelvic Abscess Due to Retained Fecalith Following Appendectomy: A Case Study

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### ABSTRACT

*This case report discusses a 50-year-old female who developed a pelvic abscess caused by a retained fecalith following an appendectomy. Despite multiple admissions and initial treatment for presumed pelvic inflammatory disease (PID), the diagnosis was delayed until the fifth presentation. Imaging revealed a pelvic abscess and a pathognomonic retained fecalith on CT, although histological confirmation was not obtained due to specimen handling. Similar cases of retained fecaliths have been reported, albeit rarely. This case highlights the importance of considering non-gynecological causes of pelvic infections, detailed surgical history, and multidisciplinary collaboration in management. Postmenopausal women require a lower threshold for intervention due to their higher risk of complications.*

### Keywords

Fecalith, Pelvic Inflammatory Disease (PID), Postmenopausal.

### Introduction

Pelvic inflammatory disease and pelvic abscesses are usually a result of an ascending infection from the endocervix mainly *Neisseria gonorrhoeae* and *Chlamydia trachomatis* 25% of cases, *Gardnerella vaginalis*, anaerobes (including *Prevotella*, *Atopobium* and *Leptotrichia*) and other organisms commonly found in the vagina may also be implicated [1].

In this case, failure to respond to treatment, recurrent presentations, and history has risen concerns on the aetiology of the pathology. Rarely, a retained fecalith after appendectomy can lead to persistent or recurrent abscesses. A fecalith, a calcified mass of fecal material, can migrate or remain at the site of contamination and act as a nidus for infection. Several similar cases have been reported in the literature, although they remain rare. Retained fecalith following laparoscopic appendectomy caused recurrent intra-abdominal abscesses within the intramuscular layers of the iliacus after delayed initial diagnosis of acute appendicitis. Fecalith

migration from the appendix produced a liver abscess after sub-hepatic laparoscopic appendectomy. The fecalith migrated into the liver parenchyma following intraoperative hepatic injury. Liu et al. [2] described a pelvic abscess caused by a retained fecalith following appendectomy, which was misdiagnosed as PID and required multiple admissions before Diagnosis. Gupta et al. [3] reported a similar case, emphasising the importance of imaging and a thorough surgical history in diagnosing retained fecaliths.

These cases illustrate the diagnostic challenge of identifying non-gynaecological causes of pelvic abscesses, especially in post-surgical patients presenting with symptoms mimicking PID. This case study contributes to the literature by underscoring the importance of thorough history-taking, imaging, and appropriate specimen handling in similar cases.

### Patients and Methods

50-year-old female who was admitted to our emergency assessment unit with RIF pain, fever, and yellowish vaginal discharge. Laboratory findings showed significantly raised inflammatory markers. Pelvic ultrasound revealed free fluid in the

pelvis surrounding a 4.9 cm soft tissue adnexal lesion. Antibiotics were started, and improvement was noticed; hence, the patient was discharged with a plan to continue antibiotics and to arrange an MRI. Two weeks later, the patient was seen again, and an MRI revealed a new right-sided hydrosalpinx measuring 6.4x5x6.3 cm, with fluid collection in the POD measuring 4.9x6.8x4.5 cm, consistent with a pelvic abscess. The patient was then admitted for intravenous antibiotics and was discharged after 24 hours on oral antibiotics for 14 days.

The patient was reviewed again. A follow-up MRI four months later revealed a significant reduction in the size of pelvic abscess. A plan was made to refer the patient to general surgeons.

### Intervention

Ten days later, the patient returned for the fifth time, complaining of worsening pain, an offensive discharge, and diarrhoea. The majority of TOAs are diagnosed in reproductive-age patients, in this patient lacking risk factors, poor response to standard antibiotics, and onset of symptoms following surgery raised concerns for surgical complication rather than PID related abscess. The surgical operative notes were reviewed and noted spillage of faecal contents during the appendectomy. A repeat CT scan showed a pathognomonic picture of a retained fecalith in the fallopian tube.

Laparoscopic right salpingectomy was performed to address the pelvic abscess. Despite clear CT findings of a fecalith, histological confirmation could not be obtained as the specimen had been placed in formalin rather than saline.

### Results

The patient's symptoms resolved completely following laparoscopic removal of the pelvic abscess and suspected fecalith. Post-operative imaging confirmed resolution of the pelvic abscess and hydrosalpinx. The inability to confirm the diagnosis histologically due to inadequate specimen preservation highlighted a critical gap in management.

### Discussion

This case illustrates the difficulty in diagnosing pelvic abscesses

caused by retained fecaliths, which often mimic gynaecological infections like PID. Cross-sectional imaging, particularly CT, played a crucial role in diagnosis in this case, as well as in other similar cases reported in the literature. Management options for pelvic abscesses include antibiotics, interventional drainage, and surgical intervention. Predictors of conservative management failure include large or complex abscesses, as seen here. Postmenopausal women may require a lower threshold for intervention due to a reported 1.7% incidence of pelvic abscesses and their 47% association with malignancy [4]. Multidisciplinary collaboration between surgeons, gynaecologists, and radiologists remains essential to ensure timely diagnosis and effective treatment. Proper specimen handling, particularly preserving specimens suspected of being fecaliths in saline, is critical for histological confirmation and guiding further management [5].

### Conclusion

Persistent or worsening pelvic symptoms in postmenopausal women should prompt further imaging and a review of surgical history. A low threshold for intervention is necessary in this group due to their higher complication risks. When a fecalith is suspected, specimens should be preserved in saline, not formalin, to allow for histological confirmation.

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