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RESEARCH ARTICLE

MEGALOAPPENDIX: A RARE GIANT APPENDIX PRESENTING WITH RETROCECAL PERFORATION, FECOLITH, AND LOCALIZED PERITONITIS

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ABSTRACT

Acute appendicitis remains the most common surgical emergency worldwide. Delayed presentation can result in perforation, abscess formation, localized or generalized peritonitis, and increased postoperative morbidity. We report the case of a 20-year-old male who presented with classical features of acute appendicitis progressing to perforation. Emergency open appendectomy revealed a large retrocecal perforated appendix with fecolith and extensive inflammatory adhesions. The patient underwent successful surgical management and recovered uneventfully.

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INTRODUCTION

Acute appendicitis is one of the most frequent causes of acute abdomen requiring emergency surgical intervention. Lifetime risk is approximately 7–8%, with peak incidence occurring during the second and third decades of life. Obstruction of the appendiceal lumen by a fecolith, lymphoid hyperplasia, foreign body, or neoplasm initiates inflammation, leading to bacterial overgrowth, ischemia, gangrene, and eventual perforation if untreated. Retrocecal appendices account for approximately 60–65% of anatomical positions and often present diagnostic challenges due to atypical clinical manifestations. Perforation significantly increases morbidity and may result in abscess formation, sepsis, and prolonged hospitalization.

Case Presentation: A 20-year-old male presented to the emergency department with:

Chief Complaints

- Sudden onset sharp abdominal pain for 5 days
- Fever for 5 days
- Nausea and vomiting (8–10 episodes)
- Loose stools (3–4 episodes)

History of Present Illness

The abdominal pain initially started in the periumbilical region and subsequently migrated to the right iliac fossa. The pain progressively increased in severity and was associated with intermittent fever, nausea, repeated episodes of vomiting, and loose motions. No history of previous abdominal surgery, tuberculosis, inflammatory bowel disease, or significant medical illness was noted.

Clinical Examination

General Examination

- Blood Pressure: 100/70 mmHg
- Pulse Rate: 100/min
- Temperature: 102°F
- SpO_2: 98% on room air

Abdominal Examination

Inspection

- No abdominal distension

Palpation:

- Soft abdomen
- Marked tenderness in right iliac fossa
- Guarding present
- No rigidity
- No palpable mass

Percussion

•Mild localized tenderness over right lower quadrant

Auscultation

- Bowel sounds present

Clinical Scoring

Modified Alvarado/MANTRELS Score: 10/10

This strongly suggested acute appendicitis with probable complications.

Laboratory Findings

- Neutrophilic leukocytosis
- Elevated inflammatory markers
- Clinical evidence suggestive of complicated appendicitis

The combination of:

- Migratory pain
- Fever
- Right iliac fossa tenderness
- Guarding
- Leukocytosis supported the diagnosis of acute complicated appendicitis.

Surgical Anatomy of the Appendix

The vermiform appendix is a blind-ended tubular diverticulum arising from the posteromedial wall of the cecum approximately 2–3 cm below the ileocecal junction.

Normal Dimensions

•Length: 6–10 cm
•Diameter: 6–8 mm

Blood Supply

•Appendicular artery
•Branch of ileocolic artery
•End artery with limited collateral circulation

Anatomical Positions

Position	Frequency
Retrocecal	60–65%
Pelvic	30%
Subcecal	2–3%
Preileal	1–2%
Postileal	1–2%

The retrocecal location often delays diagnosis because inflammatory signs may be masked by the overlying cecum and omentum.

Pathophysiology: The most likely initiating event in this patient was luminal obstruction by a fecolith.

Sequence of Events

- Luminal obstruction
- Mucus accumulation
- Increased intraluminal pressure
- Venous congestion
- Bacterial proliferation
- Ischemia
- Gangrenous appendicitis
- Perforation
- Localized peritonitis

The greater omentum attempted to contain the infection by wrapping around the inflamed appendix, producing the extensive adhesions encountered intraoperatively.

Operative Procedure

Preoperative Diagnosis: Acute complicated appendicitis with suspected perforation.

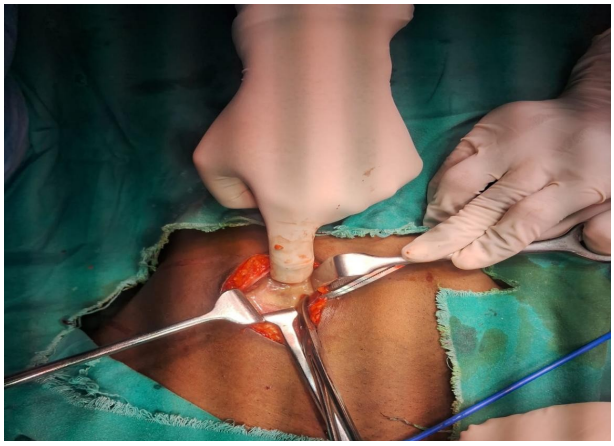
Surgical Intervention: Emergency Open Appendectomy

Operative Findings

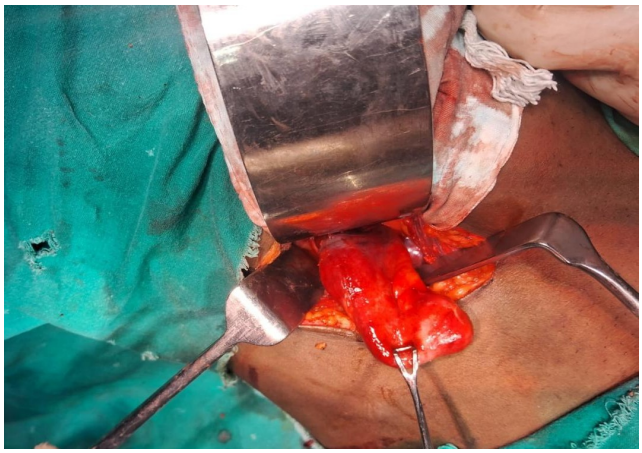
After administration of anesthesia and aseptic preparation:

- McBurney's incision was placed in the right iliac fossa.

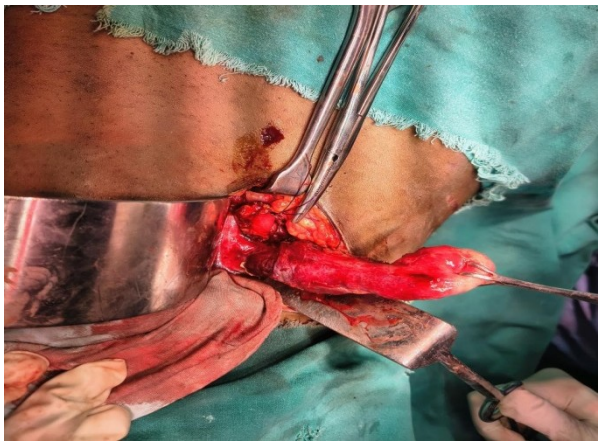
- Abdominal wall layers were divided sequentially.
- Upon entering the peritoneal cavity:



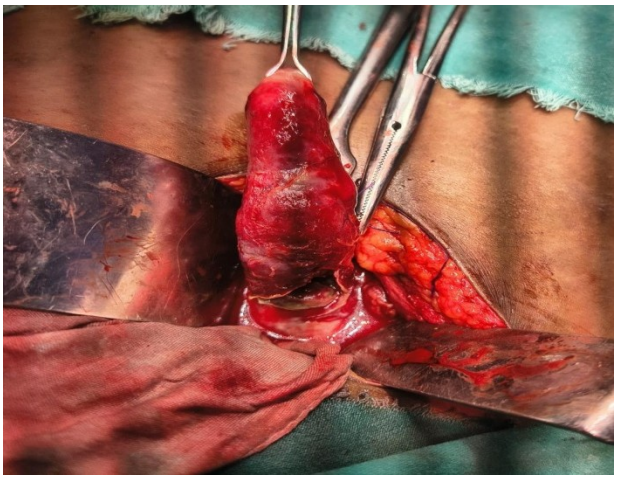
- Marked edema of surrounding tissues was observed.
- Omentum was densely adherent and completely obscured the cecum, terminal ileum, ascending colon, and appendix.
- Careful lateralization of the omentum was performed.



- The appendix was identified in a retrocecal position.
- Dense inflammatory adhesions tethered the appendix to adjacent structures.
- Adhesiolysis was carried out meticulously using electrocautery.



- The appendix was isolated from surrounding tissues.
- Examination revealed:



- Perforation near the appendiceal base
- Active pus discharge
- Presence of fecolith
- Gross enlargement of appendix

Appendix Dimensions

Approximately

8 × 3 × 2 cm, suggestive of severe inflammatory enlargement.

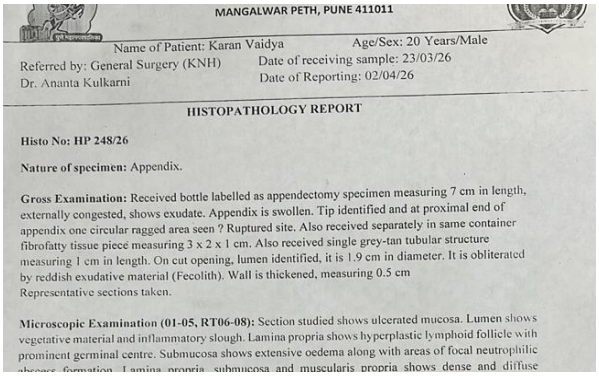
Appendectomy

- Mesoappendix ligated and divided.
- Appendicular artery secured.
- Base of appendix identified.
- Appendix ligated and divided.
- Stump secured.
- Peritoneal cavity irrigated thoroughly with warm normal saline.
- Contaminated fluid evacuated.
- Hemostasis confirmed.
- Layered closure performed.

Histopathological Diagnosis

Expected findings:

- Acute suppurative appendicitis
- Gangrenous changes
- Transmural inflammation
- Perforation
- Fecolith-associated obstruction



MANGALWAR PETH, PUNE 411011

Name of Patient: Karan Vaidya Age/Sex: 20 Years/Male
Referred by: General Surgery (KNH) Date of receiving sample: 23/03/26
Dr. Ananta Kulkarni Date of Reporting: 02/04/26

HISTOPATHOLOGY REPORT

Histo No: HP 248/26

Nature of specimen: Appendix.

Gross Examination: Received bottle labelled as appendectomy specimen measuring 7 cm in length, externally congested, shows exudate. Appendix is swollen. Tip identified and at proximal end of appendix one circular ragged area seen ? Ruptured site. Also received separately in same container fibrofatty tissue piece measuring 3 x 2 x 1 cm. Also received single grey-tan tubular structure measuring 1 cm in length. On cut opening, lumen identified, it is 1.9 cm in diameter. It is obliterated by reddish exudative material (Fecolith). Wall is thickened, measuring 0.5 cm
Representative sections taken.

Microscopic Examination (01-05, RT06-08): Section studied shows ulcerated mucosa. Lumen shows vegetative material and inflammatory slough. Lamina propria shows hyperplastic lymphoid follicle with prominent germinal centre. Submucosa shows extensive oedema along with areas of focal neutrophilic abscess formation. Lamina propria, submucosa and muscularis propria shows dense and diffuse

Postoperative Management: The patient was shifted to ICU for close monitoring.

Management Included

- Intravenous fluids
- Broad-spectrum antibiotics
- Analgesics
- Antiemetics
- Electrolyte correction
- Monitoring for sepsis
- Early mobilization
- Wound care

The postoperative period remained stable and uneventful.

Outcome

- Clinical improvement noted
- Oral feeds gradually resumed
- No evidence of wound infection
- No intra-abdominal collection
- Discharged on postoperative day 5

DISCUSSION

Perforated appendicitis is a severe complication occurring in patients with delayed presentation. Risk factors include:

- Delay in seeking treatment
- Retrocecal appendix
- Presence of fecolith
- Young age
- Virulent bacterial infection

In this case, the disease progressed over five days resulting in:

- Perforation
- Localized pus formation
- Extensive inflammatory adhesions
- Omental wrapping

The greater omentum acted as the "policeman of the abdomen" by containing the infection and preventing diffuse peritonitis. Open appendectomy remains an effective treatment option in complicated appendicitis, particularly when dense adhesions, perforation, abscess, or distorted anatomy are anticipated.

Potential Adverse Surgical Outcomes

Intraoperative Complications

- Hemorrhage
- Cecal injury
- Ileal injury
- Ureteric injury
- Incomplete appendectomy
- Fecal contamination
- Anesthetic complications

Early Postoperative Complications

1.Surgical site infection
2.Wound dehiscence
3.Intra-abdominal abscess
4.Paralytic ileus
5.Persistent fever
6.Sepsis
7.Enterocutaneous fistula
8.Pneumonia
9.Deep vein thrombosis

Late Complications

- Adhesive intestinal obstruction
- Incisional hernia
- Chronic abdominal pain
- Stump appendicitis
- Adhesion-related bowel obstruction
- Keloid formation

Prognosis: Early surgical intervention following diagnosis of perforated appendicitis generally results in favorable outcomes. Delayed treatment can significantly increase morbidity and mortality due to generalized peritonitis and

septic shock. In this patient, successful emergency appendectomy, adequate source control, and postoperative intensive care resulted in complete recovery without major complications.

CONCLUSION

This case highlights a classical progression of acute appendicitis to perforated retrocecal appendicitis caused by fecolith obstruction. Delayed presentation led to localized peritonitis, extensive omental adhesions, and perforation near the appendiceal base. Emergency open appendectomy with careful adhesiolysis and adequate peritoneal lavage achieved successful source control. Prompt recognition and surgical intervention remain crucial in reducing morbidity associated with complicated appendicitis. This version is formatted in a style suitable for a surgical case report, postgraduate thesis, departmental presentation, or submission to a clinical surgery journal after adding imaging, histopathology, and references.

REFERENCES

Samaha AHA, Tawfik AS, Abbas TO, Abdelhamid A. Megaloappendix: A case report. Case Rep Surg. 2011;2011:729304. doi:10.1155/2011/729304.

Balint IB, Nad M, Kiraly A, Bali O, Rashed A, Vizsy L. Giant appendix or an appendiceal mucocele? Case report of an 11-year-old child. Interv Med Appl Sci. 2014;6(4):187-190. doi:10.1556/IMAS.6.2014.4.8.

Bhangu A, Søreide K, Di Saverio S, Assarsson JH, Drake FT. Acute appendicitis: modern understanding of pathogenesis, diagnosis, and management. Lancet. 2015;386(10000):1278-1287. doi:10.1016/S0140-6736(15)00275-5.

Singh JP, Mariadason JG. Role of the faecolith in modern-day appendicitis. Ann R Coll Surg Engl. 2013;95(1):48-51. doi:10.1308/003588413X13511609954851.

Di Saverio S, Podda M, De Simone B, et al. Diagnosis and treatment of acute appendicitis: 2020 update of the World Society of Emergency Surgery Jerusalem guidelines. World J Emerg Surg. 2020;15:27. doi:10.1186/s13017-020-00306-3.

Carr NJ. The pathology of acute appendicitis. Ann Diagn Pathol. 2000;4(1):46-58. doi:10.1016/S1092-9134(00)90011-X.

Humes DJ, Simpson J. Acute appendicitis. BMJ. 2006;333(7567):530-534. doi:10.1136/bmj.38940.664363.AE.

Wakeley CPG. The position of the vermiform appendix as ascertained by an analysis of 10,000 cases. J Anat. 1933;67(Pt 2):277-283.

Tran N, Emuakhagbon VS, Baker BT, Huerta S. Re-assessing the role of the fecalith in acute appendicitis in adults: case report, case series and literature review. J Surg Case Rep. 2021;2021(1). doi:10.1093/jscr/rjaa553.

Addiss DG, Shaffer N, Fowler BS, Tauxe RV. The epidemiology of appendicitis and appendectomy in the United States. Am J Epidemiol. 1990;132(5):910-925. doi:10.1093/oxfordjournals.aje.a115734.

Fitz RH. Perforating inflammation of the vermiform appendix; with special reference to its early diagnosis and treatment. Am J Med Sci. 1886;92:321-346.

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