



Ramhorn Appendix: An Atypical Presentation

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ABSTRACT

Acute appendicitis is the inflammation of the appendix and is usually diagnosed clinically. Due to its variable positions and atypical presentation, it is not clinically diagnosed and the role of imaging is of paramount importance in such a scenario. In this case study, we are discussing one of the atypical presentations of acute appendicitis which was clinically very difficult to diagnose and manage.

Keywords: Atypical presentation, Acute appendicitis, Imaging

INTRODUCTION

Acute appendicitis is an acute inflammation of the appendix. It is primarily diagnosed clinically and imaging supports the diagnosis, especially in females to rule out any pelvic pathology and it aids in locating the appendix preoperatively. Preoperatively, there are several positions described in the appendix. The tip of the appendix can be found at several locations. However, with the atypical presentation of acute appendicitis, because of the non-classical position of the appendix, preoperative imaging studies help in diagnosing and planning appropriate management.

Embryologically, the caecum and ascending colon are usually covered retroperitoneally by the posterior peritoneum. If this normal process is altered or stopped, the caecum and ascending colon may be suspended on a mesentery that allows the colon to move freely [1].

It classically presents acutely, with right iliac fossa pain, requiring prompt diagnosis to facilitate early appendectomy in most cases. The classic presentation of appendicitis includes anorexia, nausea, and vomiting; low-grade fever, and abdominal pain that starts in the periumbilical region and migrates to the right lower quadrant [2]. Acute appendicitis is known to have variable presentations. If the appendix is located in a retrocecal or retro-iliac anatomic location, the pain may be blunted by the presence of the overlying bowel. Less typical symptoms such as increased urinary frequency and tenesmus can be seen in such cases [3]. We should remember that diagnosis of appendicitis is still a challenge and any delay in diagnosing can lead to higher morbidity and mortality [3].

This paper aims to present the atypical presentation of acute appendicitis with no bowel or bladder symptoms and preoperatively RAM HORN or 'JALEBI' (Indian sweet dish) position.

CASE REPORT

A 21 years old male reported to ER at 4 o'clock in the morning with complaints of suprapubic pain which was acute in onset. But he did not give any history of dysuria, hematuria, increased frequency, and hesitancy in dribbling urine or strangury. He did not offer any history of fever, loss of appetite, or vomiting. He had no history of altered bowel habits.

On clinical examination, he had suprapubic tenderness. But there was no guarding, lump, or rebound tenderness suggesting initial signs of peritoneal irritation. Bowel sounds were well present. Hematological examination revealed

raised Total leucocyte counts of 17,500/cumm with Neutrophils of 80%. His Liver and renal function test values were within normal limits. His urine examination did not reveal any abnormality.

A bedside USG did not show any obvious urinary tract pathology. Hence, He was sent for USG abdomen by a radiologist. USG abdomen showed a dilated appendix with a diameter of 12 mm and surrounding edema and minimal fluid collection in the right iliac fossa (Figure 1).

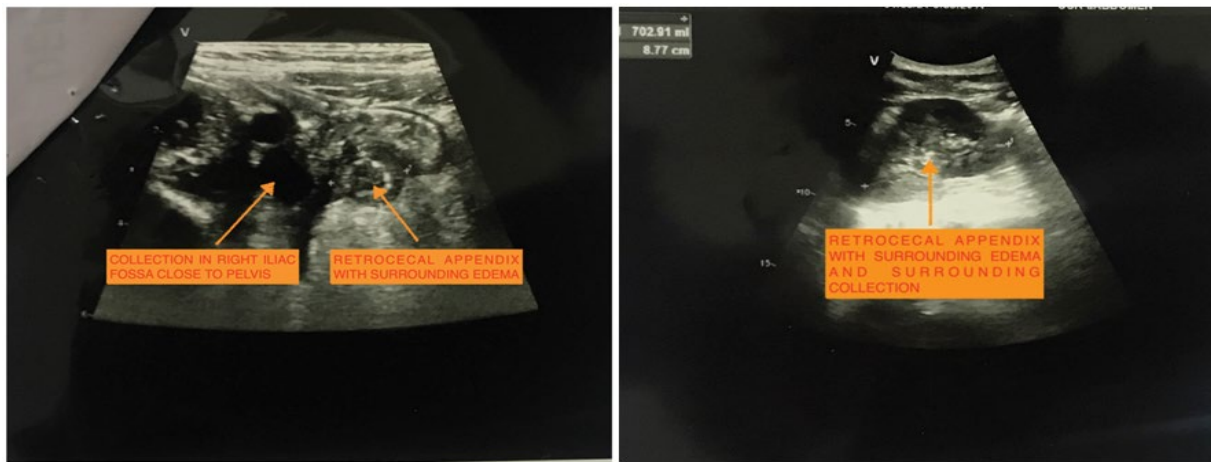


Figure 1 USG image showing the position of the appendix

In view of the above report, the patient was shifted to OR. He underwent an emergency open appendectomy under spinal anesthesia through classical Mc Burney’s point and Mc Arthur’s Incision. Perioperative findings were as follows: Inflamed tense, fragile appendix, curled upon itself in a RAM-HORN or ‘JALEBI’ (Indian sweet dish) position from base of the appendix into right iliac fossa retroperitoneally and coming back to the base of the appendix is shown in the operative photograph (Figure 2). There were about 30 ml of purulent fluid collected with thickened peritoneal and mental adhesions around the appendix.



Figure 2 Operative images

As the appendix was inflamed till base, 2 mm-3 mm margin of the caecum was taken to ligate friable appendix.

The patient was given injectable antibiotics for three days following which oral antibiotics were started and he was discharged on a post-operative day five with an uneventful post-operative period. His histopathological examination report was suggestive of acute appendicitis. He made an uneventful recovery.

DISCUSSION

Acute appendicitis is one of the most common conditions requiring emergency surgery. In the vast majority of cases, accurate history taking and physical examination alone without the need for diagnostic adjuncts are sufficient for the diagnosis. When the diagnosis is not clear from the history and examination, repeated physical examinations and monitoring of the patient's condition while using appropriate imaging will usually guide the clinician to the appropriate diagnosis [4].

When the appendix is in the retrocecal position, the signs and symptoms of acute appendicitis may be atypical and mimic pathology in the right flank and hypochondrium, such as acute cholecystitis, diverticulitis, acute gastroenteritis, ureter colic, and acute pyelonephritis [1].

For cases with unusual clinical presentations, in the older age group, or where the appendix has not been removed, underlying ileocaecal pathology must be excluded with appropriate cross-sectional imaging, CT colonography, or colonoscopy [2]. In the absence of such abnormalities, interval appendectomy after 3-6 months would usually be advised, to prevent recurrent symptoms and to exclude unusual appendiceal neoplasia such as adenocarcinoma or carcinoid (neuroendocrine) tumors.

The patient here, presented with atypical clinical features such as suprapubic pain which was not associated with fever, nausea, anorexia, dysuria, or tenesmus suggesting a pelvic position of the appendix. In absence of any systemic feature, no right lower abdominal tenderness or rebound tenderness the clinical diagnosis of appendicitis was missed. It was surprisingly brought to our sight by the radiologist conducting USG abdomen. As a good USG and CT scans are not readily available in various parts of the world, especially in developing and under-developed countries, clinicians rely mostly on clinical symptoms and signs. In such atypical cases, the diagnosis is likely to get missed out [4].

Ultrasound and MDCT have a high sensitivity and specificity for the diagnosis of acute appendicitis contributing to its correct diagnosis, especially in cases where the history and symptomatology are not typical. A meta-analysis carried out by Curtis, et al. showed that, in children and adults, both ultrasound and MDCT have a high specificity (approximately 93%-95%) whereas the sensitivity of MDCT is higher compared with that of ultrasound (94% versus 83%-88%, respectively) [5,6]. HK Lim, et al. reported that 85% had focal appendicitis that was correctly diagnosed in the US. However, the entire length of the appendix should be evaluated to avoid a false-negative diagnosis [6,7].

CONCLUSION

In conclusion, in patients with atypical presentation of acute appendicitis not diagnosed clinically, imaging studies especially CT abdomen helps diagnose the pathology and locate the organ for planning surgical approach and time management.

DECLARATIONS

Conflict of Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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