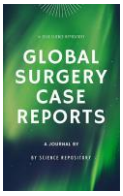

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Case Report

Appendicitis Mimicking Orchitis-A Case Report

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ABSTRACT

Acute appendicitis is one of the most common emergency surgical procedure, yet atypical presentation sometimes can be challenging for clinician. I present a case of 19-year-old gentleman that initially presented with 1day history of bilateral testicular pain and lower abdominal pain. His past history includes a positive sexual history. Initial ultrasound of the testis showed bilateral orchitis and an equivocal appendix. With a significantly raised inflammatory marker and highly suspicious for appendicitis, a CT scan was obtained which showed perforated appendicitis and the patient underwent laparoscopic appendicectomy with resolution of symptoms after that. We encourage clinician to be aware of this clinical pitfall as patient can sometimes be managed in other department to minimise any delayed diagnosis or any unnecessary procedure.

Introduction

Acute appendicitis is one of the most common acute surgical problem that present through emergency department daily. Sometimes, atypical presentation of acute suppurative appendicitis is hard to diagnose in a young adult. Presentation with acute scrotum as an initial presentation for acute suppurative appendicitis is rare and can pose a challenge to the clinician on call irrespective from the emergency, urology and general surgical department and hence we encouraged clinician to be aware of this clinical pitfall as to minimise any delayed diagnosis, unnecessary scrotal exploration or a negative appendicectomy [1].

Case Presentation

19-year-old gentleman presented with one day history of bilateral sudden onset constant testicular pain. His pain was aggravated by movement and radiates to his anus and lower abdomen. He has had ongoing severe pain for at least 6 hours before presenting to ED. He also complained about nausea and had a few bouts of vomiting. He denies having any urinary symptoms. He also denies having any recent viral attack/prodrome. His other significant past history includes an unprotected sexual intercourse 2 weeks ago. He has got no previous significantly medical history and surgical history. He smokes marijuana and cigarette as well. On examination on arrival he was tender on his bilateral testis and was tender on palpation of his epididymis. His abdomen examination he complained of bilateral lower abdomen tenderness. The initial impression for him was bilateral epidydimo-orchitis associated with sexually transmitted infection.

On ultrasound, it was noted that there is increased vascularity in bilateral right and left testis which is consistent with orchitis. Both epidydimis appear normal in size and echogenicity and no signs of testicular torsion. His bloods on arrival was showing a WCC -27, urine dip was unremarkable. An ultrasound appendix was also obtained as his WCC of 27 was atypical for orchitis. The ultrasound revealed that there were multiple small lymph nodes identified in right iliac fossa largest measuring 5.5mm, however the appendix was not identified. His pain improved with pain killer and he was admitted under urology team for observation. On the next day upon reviewed by the urology team, his testicular pain and abdomen pain was worsening. A decision was made for a Ct scan to rule out any urinary tract stones and appendicitis. Ct scan revealed a fluid filled distal appendix measuring 1.7cm lying in the pelvis with an appendicolith in mid segment of pelvis. There was evidence of free fluid in the pelvis and few air locules seen suggesting acute perforation of the appendix (Figure 1 & 2).

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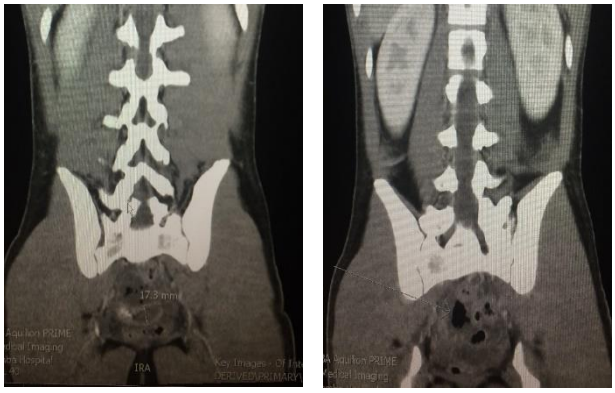

Figure 1 & 2: Ct scans revealed a fluid filled distal appendix measuring 1.7cm lying in the pelvis with an appendicolith in mid segment of pelvis.

Patient was brought to theatre for a laparoscopic appendicectomy. Intraoperative findings revealed appendix that was perforated at the tip with pus and fibrin in the pelvis. He returned to the ward after that and stayed in hospital for the next 5 days for Iv antibiotics.

Discussion

The appendix is a tubular structure at the junction of the cecum. During childhood, the cecum continues to grow, and the appendix will commonly rotate into a retrocecal position but still remains in its intraperitoneal position. Approximately in a quarter of patients, the rotation does not occur, and hence variation in position of the appendix in relation to the cecum occurs [2]. The position of the appendix is significant as it gives the variation in terms of location of abdominal pain depending on where the inflammation is. Majority of appendix are retrocecal which has approximatively 74%. Pelvic position is the second commonest position approximately 21 % followed by paracecal, subcecal and postileal approximately 2 %, 1.5% and 1.1% respectively [2]. Patients with acute appendicitis typically present with colicky abdominal pain in periumbilical region as the visceral afferent pathways is stimulated through the distension of the appendix. With the progression of inflammation of the appendix, the parietal peritoneum in the right iliac fossa becomes irritated and produces more localised somatic pain in the right iliac fossa. In a study carried out by Bassem About Merh, right lower quadrant pain are the most common symptoms in patients who underwent laparoscopic appendicectomy with (93%) followed by nausea (82.8%), vomiting (81%) and anorexia (79.3%) [3].

In patient with pelvic appendicitis, symptoms can varies depending on which organ the appendix is in contact with such as diarrhoea if in contact with rectum; increased frequency of micturition if in contact with bladder and tenderness around the pelvic region if in contact with the pelvic parietal peritoneum. In the above case, although he did complain about suprapubic pain, he was also tender at his scrotum. With a positive sexual history, ultrasound that ellicit bilateral orchitis and a negative urinalysis, the working diagnosis at that time was bilateral orchitis secondary to sexually transmitted disease. He was admitted overnight for observation and serial examination as his WCC was extremely elevated and had a CT scan of the kidneys, ureters and bladder (KUB) the next day to look for urinary tract stones which eventually detected the perforated appendix. The occurrence of testicular pain initially in an acute appendicitis is extremely rare however can occur as referred pain due to the testis sharing the same nerve supply as the appendix for T 10 segment [4]. Acute scrotum can also occur from intraperitoneal fluid from perforated appendix entering a scrotal sac through a patent processes vaginalis [5]. In conclusion, clinical presentation of acute appendicitis varies with each patient and may sometimes pose a challenge to clinician by mimicking acute scrotum. In patients with atypical presentation patient should be carefully evaluated with high index of suspicion and a low threshold for serial examination, consider definitive imaging in elderly patients or consider diagnostic laparoscopy in younger patients for possible undetermined pathology.

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References

1. Najafizadeh-Sari S, Mehdizadeh H, Bagheri-Baghdasht MS, Manoochehry S (2017) Suppurative appendicitis presenting acute scrotal pain: a rare condition may confuse surgeons. *J Surg Case Rep* 2017: rjx215. [Crossref]
2. Williams NS, Bulstrode CJK, O'Connell PR (2013) Bailey and Love's Short Practice of Surgery; 26th edition. Boca Raton: CRC Press 1199-1214.
3. Abou Merhi B, Khalil M, Daoud N (2014) Comparison of Alvarado score evaluation and clinical judgment in acute appendicitis. *Med Arch* 68: 10-13. [Crossref]
4. Romanes GJ (1986) Cunningham's manual of practical anatomy: Vol. 2. Thorax and abdomen (15th ed). Oxford, England: Oxford University Press.
5. DIenye PO, Jebbin NJ (2011) Acute Appendicitis Masquerading as Acute Scrotum: A Case Report. *Am J Mens Health* 5: 524-527. [Crossref]