Acute appendicitis within a recurrent inguinal hernia presenting as epididymo-orchitis

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ABSTRACT

We report the first case of appendicitis within a recurrent inguinal hernia, more unique in its presentation as epididymo-orchitis. A 61-year old male presented with right testicular pain, erythematous scrotum and raised inflammatory markers. He previously had recurrent left epididymo-orchitis and right inguinal hernia repair. A diagnosis of epididymo-orchitis was made but CT was performed which diagnosed acute appendicitis within a recurrent inguinal hernia entering the scrotum. This was confirmed intra-operatively with a distal inflamed appendix segment passing beyond the medial border of the exposed mesh. Correct pre-operative CT diagnosis requires high index of suspicion even with innocuous testicular symptoms. CT reduces misdiagnosis which is associated with significant morbidity, and also aids in planning surgical approach. The only other case of acute appendicitis presenting with testicular symptoms was diagnosed only during scrotal exploration necessitating further laparotomy. The appendix entrapment beyond the mesh could suggest an alternative aetiology of mesh-related appendicitis.

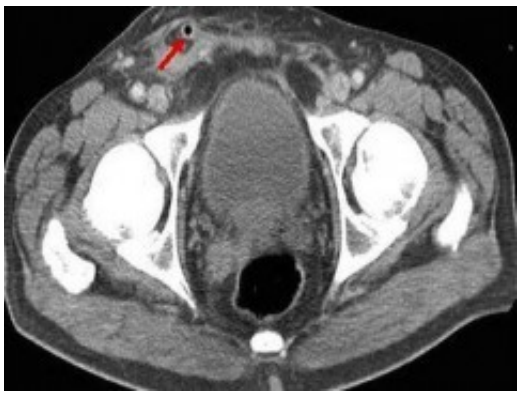
INTRODUCTION

Acute appendicitis within inguinal hernia is rare but increasingly reported. We report the first case of appendicitis within a recurrent inguinal hernia. This is more unique in that it presented as epididymo-orchitis thus highlighting the need for high index of suspicion, even with innocuous testicular symptoms, following previous groin surgery. We discuss the role of pre-operative computed tomography (CT), surgical management and the possible aetiology of mesh-induced appendicitis.

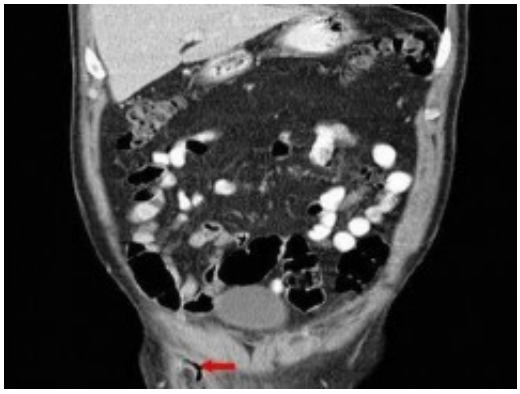
CASE REPORT

A 61-year old male presented with a 12 hours of right testicular pain, scrotal erythema and raised inflammatory markers (C-Reactive Protein 324 mg/L & leukocytosis 19.9 X 10^9/L) on background of right inguinal hernia repair 5 years ago and more recent recurring left epididymo-orchitis. He was provisionally diagnosed with right epididymo-orchitis. CT was performed because the pain was extending to the pubic tubercle, previous hernia surgery and markedly raised inflammatory markers. This showed an acutely inflamed appendix within a

small recurrent direct inguinal hernia, entering the scrotum with surrounding inflammatory soft tissue (Figure 1, 2).



A lower midline laparotomy was performed in anticipation of re-exploring the groin mesh area with a potentially difficult appendicectomy leading to possible limited caecectomy/ right hemicolectomy. CT finding was confirmed intra-operatively with the acutely inflamed appendix segment passing through a defect next to medial border of an exposed mesh segment. The appendix was delivered from within this defect and an appendicectomy was carried out without need for colonic resection. A non-absorbable suture rather than mesh was placed intraperitoneally to close the defect as the defect was small and there was concurrent appendicitis/ appendicectomy leading to potential mesh infection. Histology confirmed well demarcated distal acute appendicitis with associated fibrino-neutrophilic exudate and stromal reaction on the serosal surface. The patient made an uncomplicated recovery and was discharged 5 days later.



DISCUSSION

The incidental asymptomatic vermiform appendix is present in