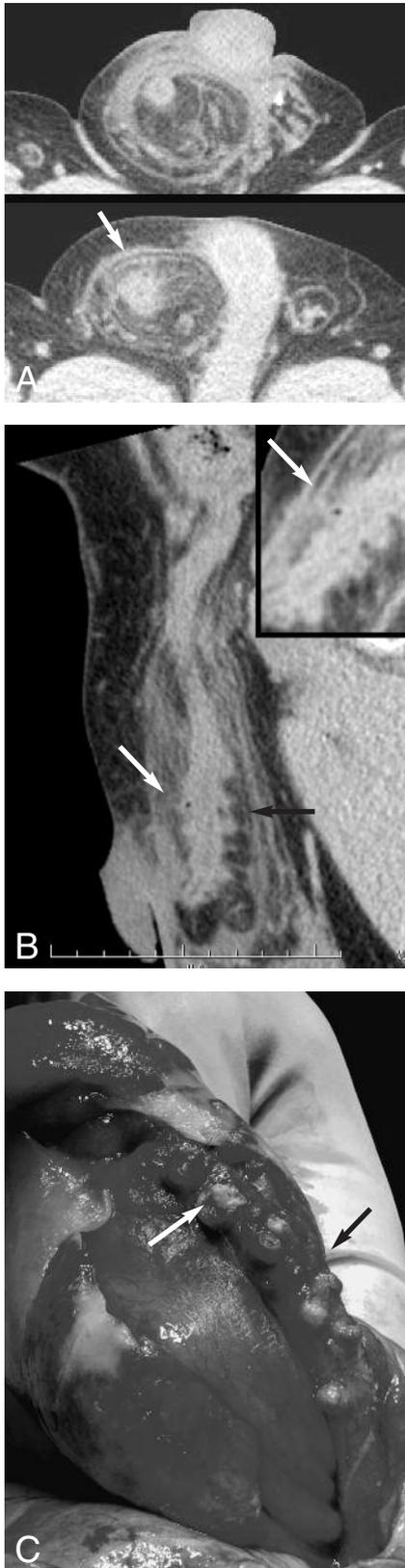


IMAGES IN CLINICAL RADIOLOGY



Appendicular diverticulitis in an Amyand's hernia

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A 68-year-old male was referred to our imaging department with a history of pain in the right groin. There was no history of unusual strain and the pain had progressively developed over the last four days.

Ultrasound examination of the inguinal area and scrotum (not illustrated) revealed an inguinal hernia containing an unusual tubular structure surrounded by inflammatory fat.

Unenhanced MDCT (A, B, C) of the pelvis confirmed an inflammatory inguinoscrotal hernia that was containing a one-eyed inflammatory tubular structure rejoining the caecum in the right iliac fossa. This structure was unambiguously identified as the appendix and it was surrounded by inflammatory mesenteric fat and epiploic appendices and by some fluid. A series of diverticula (black arrow) were also clearly identified along the appendix and at least one of them – containing a gas bubble – appeared particularly inflamed (white arrow).

Laboratory tests showed a CRP at 38,2 mg/l.

Appendicular diverticulitis – with or without appendicitis – within an inguinal hernia (Amyand's hernia) was the finally retained diagnosis.

The patient underwent classical kelotomy which confirmed the diagnosis of perforating diverticulitis of the appendix. About eight to ten diverticula were visible along the secondary inflamed appendix and at least two were perforated.

Comment

The incidence of having a vermiform appendix – normal or inflamed – within an inguinal hernial sac – a condition known as Amyand's hernia – is very low varying from 0,5 to 1% and only 0,1% of all cases of appendicitis present in an inguinal hernia.

It is extremely rare to be able to make a clinical or imaging diagnosis of an Amyand's hernia preoperatively because when clinical symptoms are associated with an inguinal mass or hernia, the diagnosis of incarceration or strangulation is generally univocally evocated by the clinicians and directly leads to surgical repair. For this reason the diagnosis of Amyand's hernia is classically always surgical.

Appendiceal diverticula are also very rare. Their incidence ranges from 0,004% to 2,1% in appendectomy specimens and from 0,2 to 0,6% from routine autopsies. They can be classified as congenital or acquired. The congenital form is a true diverticulum and is extremely rare. The more prevalent acquired diverticulum is a false diverticulum or pseudodiverticulum consisting of mucosa and submucosa herniated through vascular clefts in the muscular layer. Consequently they are classically found on the mesenteric border of the appendix. Four variations of diverticular disease of the appendix are described, namely appendiceal diverticula without inflammation, acute appendicitis with diverticula, acute appendiceal diverticulitis with acute appendicitis and acute diverticulitis (the reported case).

Isolated acute diverticulitis of the appendix is also very rare but perforates more than 4 times as likely as classical appendicitis. Clinically appendicular diverticulitis mimics appendicitis.

The coexistence of appendicular diverticulitis and Amyand's hernia is exceptional and to our knowledge no previous case has been published.