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Olgu sunumu / Case Report

APPENDICULAR ABSCESS LEADING TO SURGICAL EMPHYSEMA OF ABDOMINAL WALL AND THIGH; CASE REPORT.

Karın duvarı ve bacakta amfizeme yolaçan periapendiküler abse; Olgu sunumu.

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ABSTRACT

Emphysema of the anterior abdominal wall is associated with perforation of the small intestine, appendix and colon while emphysema of the scrotum, perineum, or thigh is usually associated with tears in the anorectal area or colon. Here in, a rare case of a retroperitoneal perforated acute appendicitis causing formation of retroperitoneal abscesses with extensive subcutaneous emphysema diagnosed by contrast-enhanced computed tomography (CECT) scan of abdomen is described.

Key words: Subcutaneous emphysema, acute appendicitis, CT scan.

ÖZET

Karın ön duvarında anfizem görülmesi apendiks ve ince barsak perforasyonu sonrasında görüldüğü halde, skrotum, perine ve bacak bölgesindeki anfizemler genellikle anorektal bölge yırtıkları ve kolon perforasyonları sonrasında görülür. Burada, akut apandisitin nadiren retroperitoneal bölgeye olan perforasyonunu takiben ortaya çıkan ve bilgisayarlı kontrastlı karın tomografi taraması ile saptanan retropritoneal apse ve yoğun ciltaltı anfizemi olgusu tanımlandı.

Anahtar kelimeler: Ciltaltı anfizem, akut apandisit, tomografi.

INTRODUCTION

"Flatus profuse present in the muscles" or subcutaneous emphysema of the lower abdominal wall and thighs was first described in 1593 by Fabricius Hildanus and published as Observatio LXX in the fifth Centuria. It can be a rare sign of an otherwise-obscure intra-abdominal abscess with gas-producing bacteria.[1]

Case

A 21 year male presented with a chief complaint of pain in the right lower abdomen, vomiting and fever since 5 days. He noticed a progressive swelling over the right lower abdomen extending to right flank and right thigh since 3 days onwards.

Physical examination revealed patient to be febrile with a pulse rate of 112/min. Examination of abdomen revealed crepitus on palpation over right iliac fossa, loin, gluteal region and upper thigh without any signs of peritonitis.

Abnormal laboratory data included leukocytosis (23,000) with 88% Neutrophilia on differential leukocyte count and a normal renal function test and blood sugar. Plain abdominal roentgenogram showed diffuse subcutaneous emphysema (Figure 1).

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Contrast-enhanced computed tomography scan of abdomen was done which showed a peripherally enhanced hypo dense collection in the right retro-peritoneum suggestive of appendicular abscess with extension into lower part of right posterior abdominal wall with air pockets extending into the intermuscular plane up to right thigh. (Figure 2).

Drainage of the appendicular abscess along with appendectomy and extensive debridement of the abdominal wall was done. Patient expired on 4th post-operative day due to septicemia.

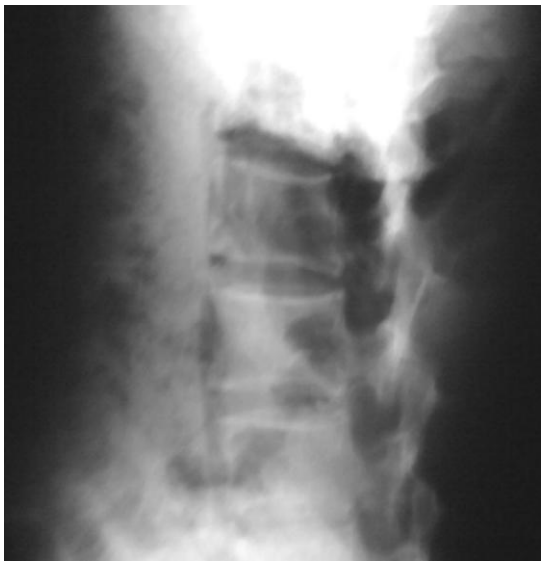

Figure 1: Plain abdominal roentgenogram showed diffuse subcutaneous emphysema.

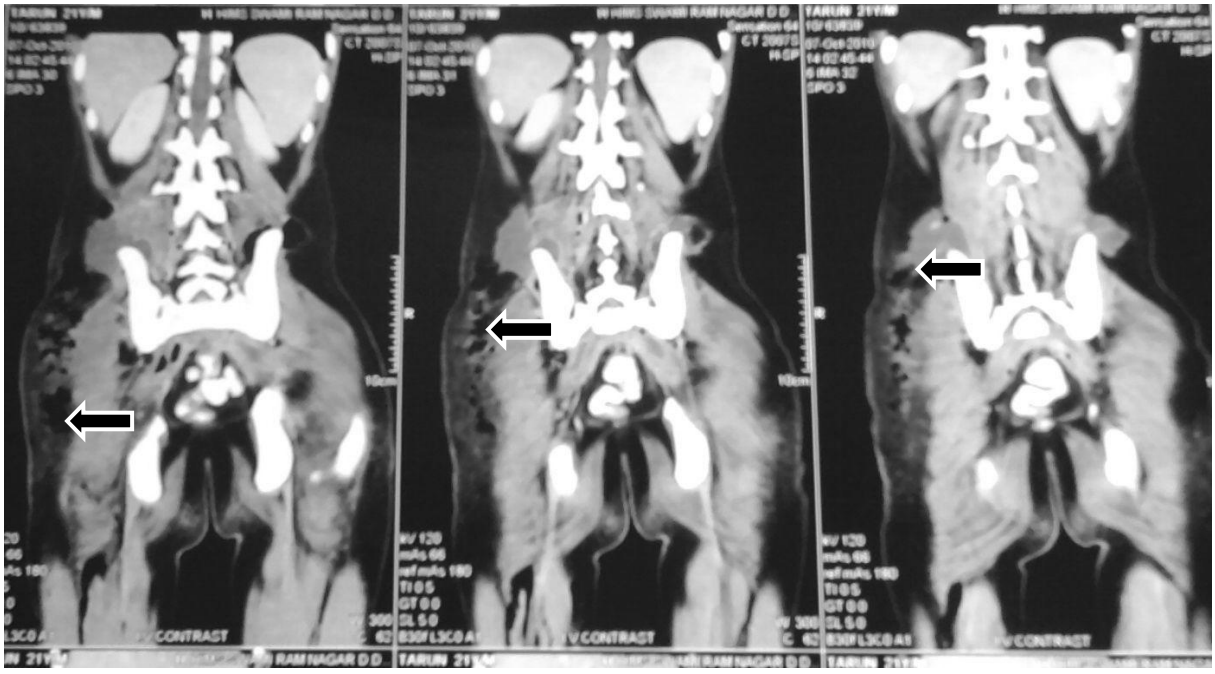

Figure 2: CECT abdomen showing an appendicular abscess with subcutaneous gas tracking into abdominal wall and thigh (arrows).

DISCUSSION

Subcutaneous emphysema of gastrointestinal origin usually occurs after surgical procedures as the direct result of the operation itself or following leakage of suture lines, fistula formation, or infections. Emphysema of the anterior abdominal wall is associated with perforation of the small intestine, appendix and colon while emphysema of the scrotum, perineum, or thigh is usually associated with tears in the anorectal area or colon. Invasive instrumental manipulation, such as endoscopic sphincterotomy, colonoscopic polypectomy, and laparoscopy has also reported subcutaneous emphysema by inducing the perforation of the hollow abdominal viscera. The anatomical site of perforation largely

determines the route of escape of the gas to the subcutaneous position and the direction of gas diffusion usually follows the plane of least resistance in the loose areolar fascial tissues.[2,3]

A retroperitoneal abscess remain one of the most serious but rare complications of acute appendicitis and is always associated with perforation of a retrocaecal appendix and it may lead to the formation of psoas and thigh abscesses with or without subcutaneous emphysema of abdominal wall extending to the thigh and the perinephric space. The superior and inferior lumbar triangles, two sites of anatomical weakness in the flank abdominal wall, allow spreading to the abdominal wall. Computed tomography scan of the abdomen not only helps in the establishment of the diagnosis, but also in the evaluation of the extension of involvement and in its treatment which is purely surgical. An early diagnosis of acute appendicitis along with appendectomy could have prevented this extensive spreading complication of appendicitis.[4-6]

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