

Tubercular mycotic inflammatory aneurysm

Published on 14.08.2018

DOI: 10.1594/EURORAD/CASE.16005

ISSN: 1563-4086

Section: Cardiovascular

Area of Interest: Arteries / Aorta

Procedure: Surgery

Imaging Technique: CT-Angiography

Special Focus: Aneurysms Case Type: Clinical Cases

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Patient: 67 years, male

Clinical History:

A 67-year-old male patient presented to the emergency department with complaints of back ache which is acute in onset and associated with abdominal pain. Patient gives past history of hypertension and diabetes.

Imaging Findings:

Patient clinically presented with abdominal tenderness. Blood workup revealed raised C reactive protein, ESR, and WBC counts. Imaging was performed with the ultrasound showing an aneurysmal dilatation in the infrarenal portion with severe tenderness on compression. Contrast-enhanced CT angiography was performed which showed a saccular aneurysmal dilatation of juxtarenal aorta, with sac measuring 38x58 mm with peri-aneurysmal soft tissue, which shows enhancement on the delayed scan. The necrosis was seen extending into the crux of the diaphragm. Thrombosis of few superior mesenteric artery branches was seen. Adrenal necrosis which was also incidentally seen. Emergency surgery was performed, which showed severe surrounding inflammation with adhesion and thrombosis of superior mesenteric artery branches. The patient however succumbed to the disease on the second postoperative day. Sample culture and histopathology were suggestive of a tubercular mycotic aneurysm.

Discussion:

Tubercular mycotic aneurysm of the aorta is very rare. First case has been reported in 1895 [1]. Diagnosis of the condition is difficult both on imaging and surgery. The condition can occur when tubercular bacilli seed the aortic intima/media/adventitia directly or erosion of aorta by a contiguous focus from para-spinal abscess or lymph nodes. Both abdominal and thoracic aorta are equally affected. 98% of these aneurysms have a saccular form [1]. Patients presents with persistent back-and-abdominal pain, hypovolaemia and expansile palpable para-aortic mass, which can be radiologically visible and are indications for surgical intervention. On cross-sectional imaging an aneurysmal sac is seen with wall thickening and peri-aneurysmal soft tissue which shows enhancement on post-contrast phase. The soft tissue causes adhesion related complication including hydronephrosis. Both medical and surgical management is warranted for the treatment of the condition.

Written informed patient consent for publication has been obtained.

Differential Diagnosis List: Tubercular mycotic inflammatory aneurysm, Infective aneurysm, Inflammatory aneurysm

Final Diagnosis: Tubercular mycotic inflammatory aneurysm

References:

Long R, Guzman R, Greenberg H, Safneck J, Hershfield E (1999) Tuberculous mycotic aneurysm of the aorta: review of published medical and surgical experience. Chest Feb; 115(2):522-31. (PMID: [10027455](#))

Figure 1

a



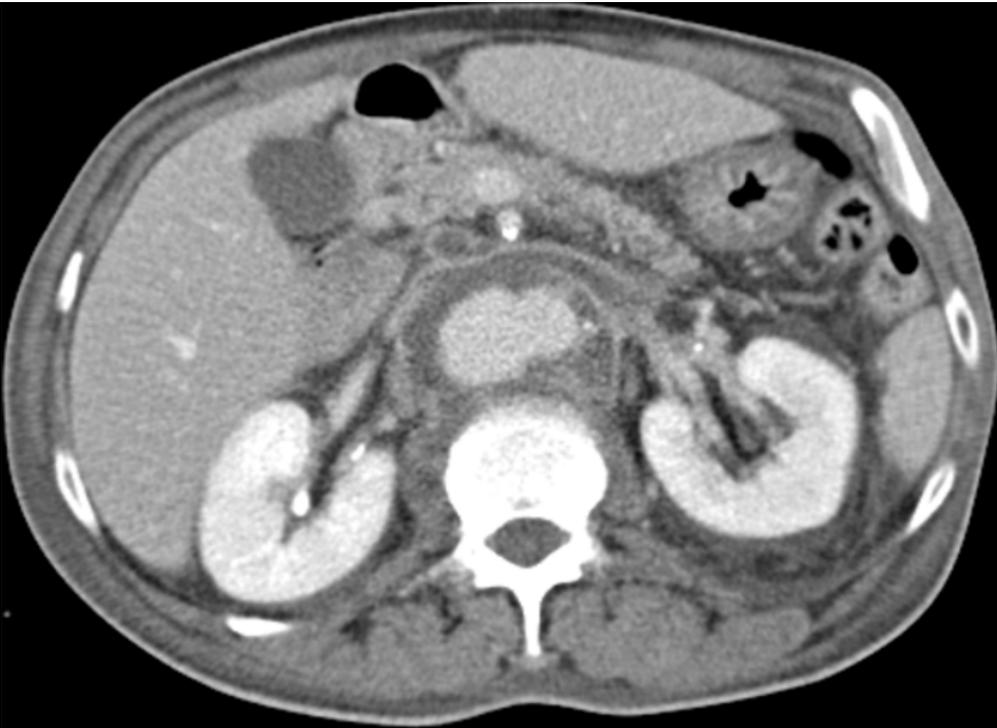
Description: CT angiography shows saccular aortic aneurysmal dilatation at the juxta renal portion with surrounding peri-aneurysmal soft tissue. **Origin:** Amrita Institute Of Medical Sciences

b



Description: Left adrenal necrosis with juxta renal aneurysm and surrounding peri-aneurysmal soft tissue. **Origin:** Amrita Institute Of Medical Sciences

c



Description: Peri-aneurysmal soft tissue enhancement with thrombosed SMA branch. **Origin:** Amrita Institute Of Medical Sciences