



An incidentally detected unruptured large abdominal aortic aneurysm with mural thrombosis and chronic haematoma

This is a rare case report of a large abdominal aortic aneurysm with mural thrombosis and chronic haematoma with signs of impending rupture. Rupture of an aortic aneurysm is a catastrophic event with high mortality rate. Hence, knowledge of the signs of impending rupture are very crucial to know. Hyperdense crescent sign and focal discontinuation of intimal calcifications are one of the many signs.

KEYWORDS: aneurysm ■ aorta ■ thrombosis ■ haematoma

Introduction

Abdominal Aortic Aneurysm (AAA) is defined as permanent, focal and irreversible dilatation of abdominal aorta measuring 50% or more than the proximal segment or more than 3cm in maximum diameter [1]. Most of them are asymptomatic and detected incidentally but sometimes take up large size and present with lump in abdomen. Main etiology remains atherosclerosis but other causes include trauma, chronic dissection, infections, vasculitis and connective tissue disorders [2]. This study therefore assessed an incidentally detected unruptured large abdominal aortic aneurysm with mural thrombosis and chronic haematoma in iliac and femoral arteries with lumen narrowing.

Case description

A 75 year old man presented with pain in abdomen for 4 months. He was a chronic smoker. On examination, blood pressure was 108/75 mm of hg and all peripheral pulses felt and a swelling noted in umbilical region measuring (10 cm × 5.2 cm). Ultrasound showed dilatation of infra-diaphragmatic aorta with lumen diameter of 5.63 cm with mural thrombosis all around and bilateral common femoral artery stenosis with calcifications (**FIGURE 1**). Computed tomography abdomen and Computed tomography angiography reveals a 10 cm × 9 cm aneurysmal dilatation of infrarenal aorta with lumen narrowing (4.3 cm × 4.5 cm) with mural thrombosis and wall calcifications and a hyperdense crescent sign noted and focal discontinuation of intimal calcification (**FIGURE 2-4**). There is contrast extravasation

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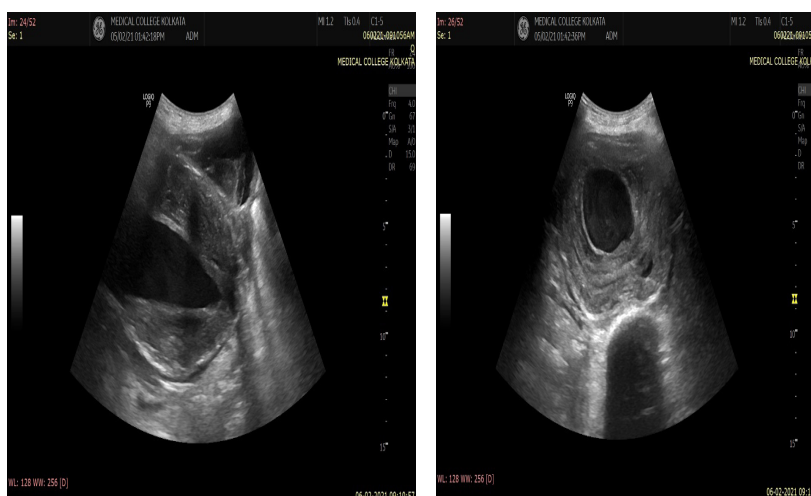


Figure 1. 2D ultrasound in axial and longitudinal scan shows a infrarenal dilation of abdominal aorta with a concentric wall thrombus surrounding it with a partly echogenic fluid collection antero-lateral to it.

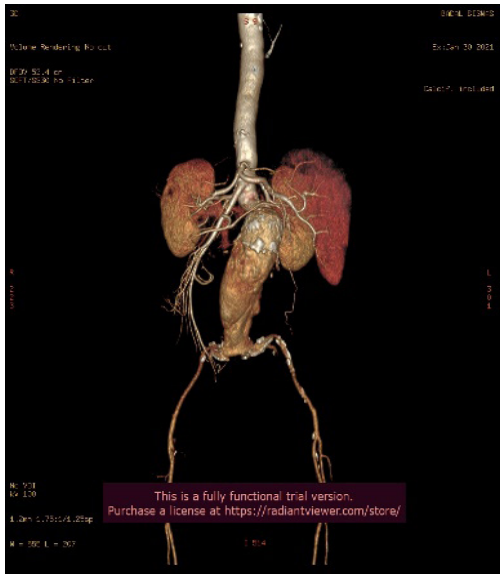


Figure 2. 3D volume rendered reconstruction image shows the infrarenal aortic aneurysm.



Figure 3. Axial non-contrast plain CT reveals a hyperdense crescent sign that represents acute haematoma within aneurysmal wall indicating impending rupture.



Figure 4. Axial CT scan with contrast angiography study reveals focal discontinuity in intimal calcified wall and hypodense chronic haematoma antero-lateral to it.



Figure 5. CT image shows the contrast extravasation into the thrombus wall and the draping of posterior aortic wall over the vertebrae indicating impending rupture.

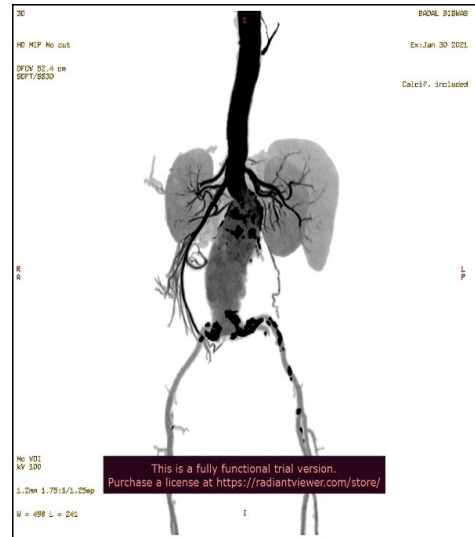


Figure 6. 3D volume rendered reconstruction processed image shows extensive calcifications in the aneurysmal wall and bilateral common femoral artery stenosis and wall calcifications.

into the thrombus wall and the draping of posterior aortic wall over the vertebrae indicating impending rupture (FIGURE 5). A hypodense encysted collection noted in anterior-lateral aspect of the aneurysm most likely chronic haematoma. Bilateral extensive atheromatous wall calcifications luminal narrowing of bilateral iliac and femoral arteries are noted with wall calcific plaques (FIGURE 6). The patient was monitored and operated successfully.

Conclusion

Ruptured aortic aneurysm is a catastrophic emergency. Hence prompt diagnosis of

impending rupture of aneurysm is beneficial for rapid management. Management options include close surveillance and endovascular repair. Thus, further study should use the anatomically shaped abdominal aortic aneurysm to assess the effectiveness.

References

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