ABDOMINAL AORTIC ANEURYSM RUPTURE – AN UNUSUAL PRESENTATION

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Introduction

Abdominal aortic aneurysm is an abnormal focal dilatation of the abdominal aorta. It is relatively common but is usually asymptomatic. An AAA can get bigger with time and rupture causing life-threatening bleeding and has a mortality of about 80%. We had a patient who presented with a stroke but also had a ruptured abdominal aortic aneurysm.

Case presentation

- A 58-year-old male with a past medical history of hypertension and type II DM presented to our ED with altered mental status. He was found in the bathroom at home, with altered sensorium. His last well-known time was around 4 pm on the day of presentation.
- Vital signs on presentation: Temperature 96.3F, HR 92, BP 116/78 mm Hg, RR 42, SpO_2 100%.
- On physical examination, he was lethargic, trying to mouth his name but non-verbal and did not follow commands. He had subtle asymmetry over the right face. His left upper extremity strength decreased (1/5). The rest of the extremities had a strength of 3-4/5. NIHSS of 20 was calculated.
- Labs were significant for leukocytosis, elevated creatinine 6.2 mg/dL. EKG showed normal sinus rhythm, left axis deviation, LVH with secondary ST-T changes, left atrial enlargement and prolonged QT interval.
- Imaging: CXR was unremarkable. CT head showed possible old small lacunar infarcts without any definite acute findings. In view of high creatinine, a CT abdomen and pelvis was ordered. It showed a large abdominal aortic aneurysm with dilated infra-renal aorta, with a large retroperitoneal hematoma which was highly suspicious for an AAA rupture.
- The patient was then transferred to a tertiary care center from the ED where he underwent an emergent endovascular repair of infrarenal aorta and iliac arteries. At the tertiary care center, an MRI of the brain was done, which confirmed the presence of acute infarcts in the occipital lobe, bilateral cerebral and cerebellar hemispheres.

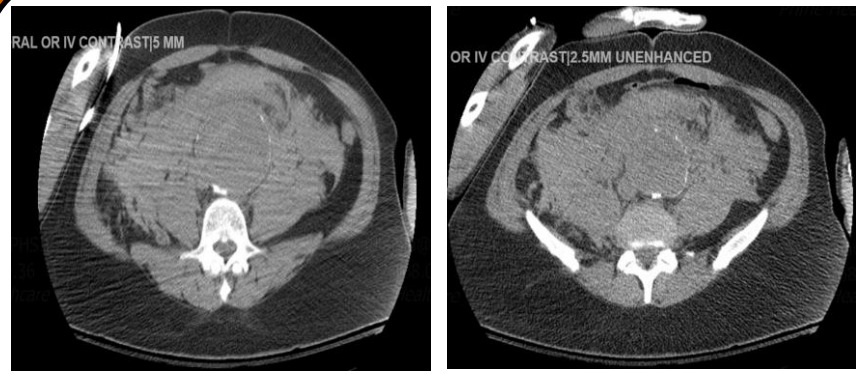

Figure 1,2 showing dilated infra-renal aorta with large retroperitoneal hematoma on CT abdomen and pelvis

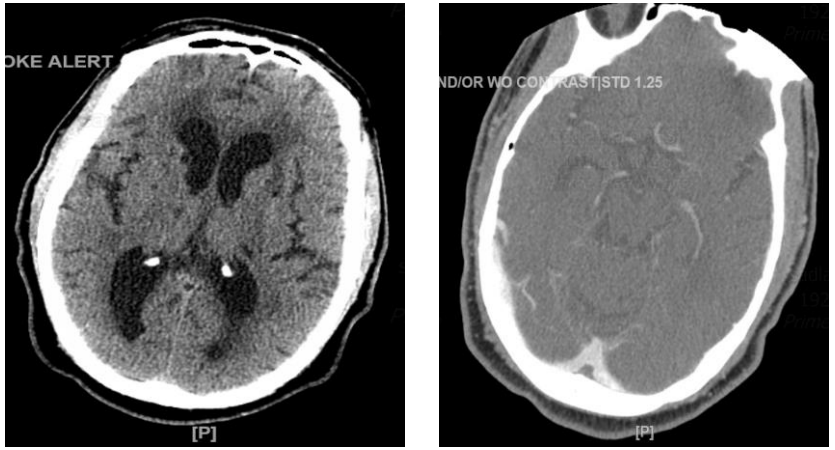

Figure 3 shows CT head with old small lacunar infarcts

Figure 4 shows CT angiogram of head and neck without any large vessel occlusion, hemodynamically significant stenosis or aneurysm

Discussion

- Abdominal aortic aneurysm (AAA) rupture is a medical emergency and if not diagnosed and treated in a timely manner the mortality can be very high, up to 100%.
- 50% of patients with aortic aneurysms present as ruptured aneurysm as their primary presentation.
- There are several causes of aneurysm dilatation such as direct trauma, chronic infections, acute infections and inflammatory causes.
- Atherosclerotic aortic wall damage has been considered major risk factor associated with abdominal aortic aneurysm[1].
- The classic presentation of severe abdominal pain, hypotension, and a pulsatile abdominal mass occurs in only 50 percent of patients[2].
- Rest will have atypical presentation like GI bleeding, pain in atypical presentations such as flank, back, groin, or hip, suggesting a renal, hepatobiliary or pancreatic disorder; syncope / altered mental status or stroke like symptoms due to rapid blood loss and lack of cerebral perfusion can also occur[3].

Conclusion

- If AAA rupture is suspected, patient should be immediately taken to the operating room for control of hemorrhage and emergency repair of the aneurysm.
- Surgical treatments include open surgery and endovascular aneurysm repair (EVAR).

References

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