

SUPERIOR MESENTERIC ARTERY THROMBOSIS IN A CASE OF AORTIC DISSECTION

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Abstract

The primary treatment of acute descending thoracic aortic dissection (Stanford type B) remains medical. Surgical intervention for acute type B aortic dissection has been reserved for complications. We present a rare case of type B aortic dissection in a female patient, associated with superior mesenteric artery thrombus. 65/F with pain in abdomen for 4 days, radiating to back, history of one episode of hematemesis, No other symptoms. BP was 200/110 mmHg, abdomen was soft, non-tender, peripheral pulses well felt and peripheries were warm. CXR s/o mediastinal widening. CT angiography s/o type B aortic dissection extending from lower thoracic aorta to the bifurcation of renal arteries, and a partial lumen occluding thrombus in SMA extending to proximal mesenteric arteries, occluding 40-80% of the lumen. Patient was started on antihypertensives, and once the BP was under control, she was started on anticoagulants for the SMA thrombus, and finally discharged on Tab Acitrome 3mg od.

Usually involvement of mesenteric arteries is associated with bowel ischaemia/gangrene and may require surgical intervention; however, as evidenced by our case report, observation and conservative management may suffice in cases of mesenteric artery thrombus without any signs of complete luminal obstruction or threatened gangrene of bowel.

Keywords: Acute, dissection, aortic Dissection, mesenteric artery thrombus.

INTRODUCTION

Aortic dissection is a catastrophic cardiovascular disease associated with high morbidity and mortality. Advances in the understanding of this disease have established that lesions limited to the descending aorta (type B) generally have better survival compared with those involving the ascending aorta. Most cases have a male preponderance, and associated with hypertension. The incidence of aortic dissection is estimated to be 5-30 cases per 1 million people per year.

We present a rare case of type B aortic dissection in a female patient, associated with superior mesenteric artery thrombus.

CASE CAPSULE

65/F presented to emergency department with pain in abdomen for 4 days, radiating to back, dull aching in character with no aggravating or relieving features. She had history of one episode of hematemesis, with around 5 ml altered blood. There was no chest pain/shortness of breath/palpitations. No syncope/stroke, No malena/hematochezia. No known comorbidities. On examination, BP was 200/110 mmHg, abdomen was soft, non-tender, PR – NAD, peripheral pulses well felt and peripheries were warm. USG A/P NAD. CXR s/o mediastinal widening.

Patient was admitted in the cardiovascular ward. She did not have any further episodes of abdominal pain since admission.

ABG was done, suggestive of serum lactate levels 0.8 (normal), suggesting no evidence of metabolic acidosis.

CT angiography s/o type B aortic dissection extending from lower thoracic aorta to the bifurcation of renal arteries, and a partial lumen occluding thrombus in SMA extending to proximal mesenteric arteries, occluding 40-80% of the lumen.

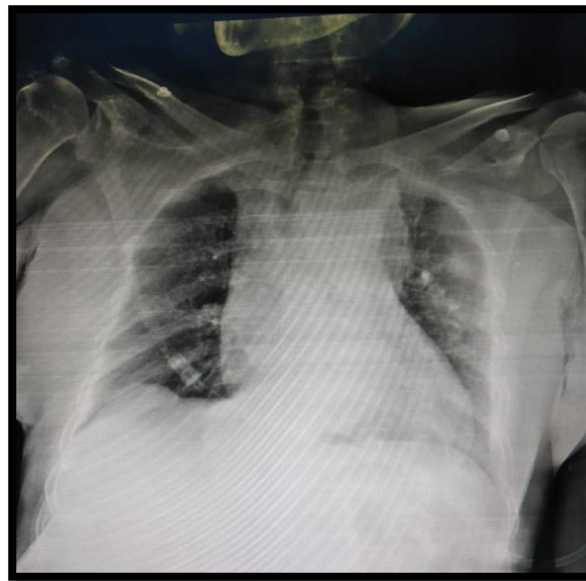


Fig 1: Chest x ray



Fig 2: CT angiogram showing dissection in descending aorta

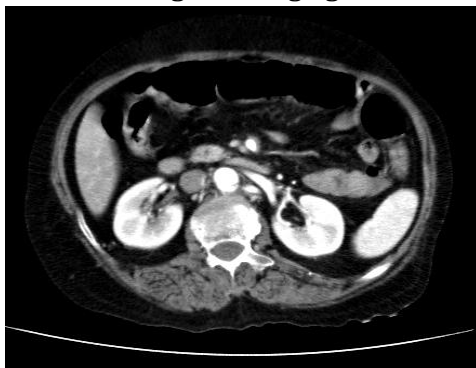


Fig 3: CT angiogram with dissection



Fig 4: Dissection till bifurcation of renal vessels

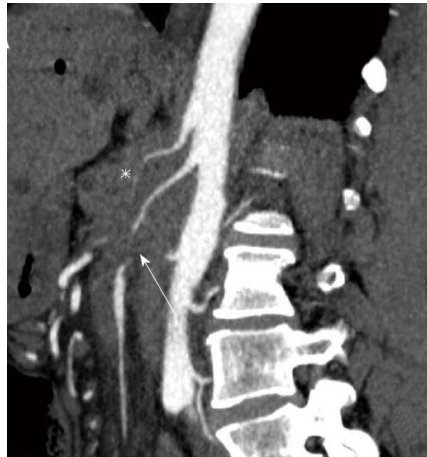


Fig 5: Thrombus in SMA



Fig 6: 3D reconstruction of SMA with thrombus

Patient was started on antihypertensives, and once the BP was under control, she was started on anticoagulants for the SMA thrombus. During this time the patient did not have any abdominal complaints, was tolerating full diet and passing normal stools.

Patient was finally discharged on Tab Acitrome 3mg od.

DISCUSSION

Currently, the primary treatment of acute descending thoracic aortic dissection (Stanford type B) remains medical. Surgical intervention for acute type B aortic dissection has been reserved for complications such as aneurysmal expansion, end organ malperfusion, and failure of medical management with refractory pain. The spectrum of clinical presentations accompanying acute dissection of the aorta is wide.

The study of Hirst et al³ documented involvement (not obstruction) of either the superior mesenteric artery or celiac axis in 10% of cases of aortic dissection examined at autopsy.

Another study by Cambria et al⁴ between 1965 and 1986 reported mesenteric ischaemia in only 2.5% of their 325 cases of spontaneous aortic dissection.

Usually, involvement of mesenteric arteries is associated with bowel ischaemia/gangrene and may require surgical intervention; however, as evidenced by our case report, observation and conservative management may suffice in cases of mesenteric artery thrombus without any signs of complete luminal obstruction or threatened gangrene of bowel.

This is a rare case as the patient, despite having aortic dissection and SMA thrombus, did not have any features of bowel ischaemia. Clinically the abdomen was normal, and on investigations, she had normal lactate levels, and no evidence of metabolic acidosis.

CONCLUSION

SMA thrombosis is a rare complication in a case of aortic dissection. Keen observation and conservative management along with anticoagulation can provide a favourable outcome.



REFERENCES

1. Hirst AE, Johns VJ, Kime SW. Dissecting aneurysm of the aorta: a review of 505 cases. *Medicine* 1958;37:217-79.
2. Cambria, R., Brewster, D., Gertler, J., Moncure, A., Gusberg, R., Tilson, M.D., Darling, R., Hammond, G., Mergerman, J., & Abbott, W. (1988). Vascular complications associated with spontaneous aortic dissection. *Journal of vascular surgery*, 7 2, 199-209 .