Poster No.81

# EXTENSIVE AORTIC DISSECTION



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### **INTRODUCTION**

Aortic dissection resulted from aortic wall degenerative changes because of chronic hypertension. However, it can also occur among younger patients with Marfan's syndrome, Ehlers-Danlos syndrome or chronic cocaine or amphetamine usage.

#### CASE DESCRIPTION

A 40-year-old Indonesian male with no background medical illness presented tearing epigastric pain, which radiated to the back for two days. Concurrently, the patient had right upper limb weakness and intermittent sharp left-sided chest pain for one month. The patient was tachypneic with a weak right radial pulse and radio-radio delay. Systolic blood pressure (SBP) of the bilateral upper limb had a discrepancy >20mmHg with lower blood pressure at the right upper limb. Immediate chest radiograph showed widened mediastinum. The bedside transthoracic ultrasound indicated intimal dissection flaps in the ascending aorta, bilateral common carotid artery, descending and abdominal aorta. Subsequently, the Computed Tomography Angiography (CTA) confirmed the ultrasound findings. The patient was given intravenous opiates for analgesia and beta-blockers with a target heart rate of fewer than 60 beats per minute and systolic blood pressure of less than 120. The patient was planned for urgent vascular repair but opted to do the surgery in his native country. Unfortunately, the patient was brought in dead five hours after discharge from the surgical ward.

## **DISCUSSION**

Acute aortic dissection poses a diagnostic dilemma, for it has a myriad of presentations. A diagnostic pearl to suspect aortic dissection is chest pain with other neurological or vascular symptoms. Bedside point of care ultrasound (POCUS) has high specificity to rule in aortic dissection when visualised intimal dissection flaps. Therefore, control of blood pressure and heart rate is paramount to reduce shearing forces which will worsen the aortic dissection. Emergent surgical repair is indicated for Stanford type A aortic dissection.

#### **CONCLUSION**

In conclusion, extensive aortic dissection can happen in a young male with no risk factors for aortic dissection. A high index of suspicion is needed to rule out aortic dissection for a patient presenting with chest pain or epigastric pain with peripheral pulse deficits. Bedside POCUS can augment history and physical examination, thus expediting the patient's diagnosis and subsequent management.

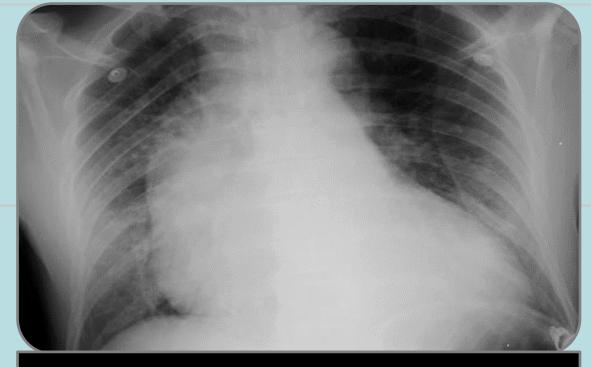


Image 1: Chest Radiograph showing widen mediastinum

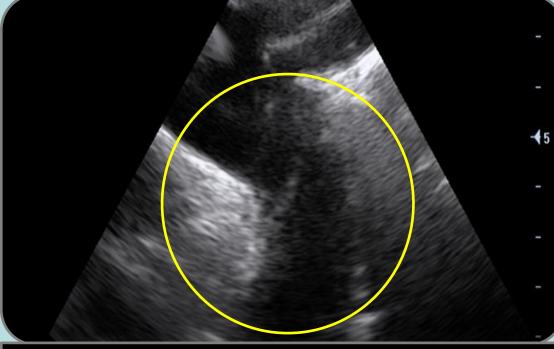


Image 2: Transthoracic Echocardiography
Suprasternal View showing intimal dissection flap from arch of aorta till the descending aorta

ACKNOWLEDGEMENT

The author would like to thank the Ministry of Health Malaysia and Emergency and Trauma Department, Hospital Bintulu Sarawak, Malaysia, for providing governance for this case report and the Director-General of Health Malaysia's permission to publish this e-poster.

DECLARATION OF CONFLICT

The author declares that there is no conflict of interest.

#### REFERENCES

1. Leitman, I.M., Suzuki, K., Wengrofsky, A.J. et al. Early recognition of acute thoracic aortic dissection and aneurysm. World J Emerg Surg 8, 47 (2013). https://doi.org/10.1186/1749-7922-8-47

- 2. Arturo Evangelista, Frank A. Flachskampf, Raimund Erbel, Francesco Antonini-Canterin, Charalambos Vlachopoulos, Guido Rocchi, Rosa Sicari, Petros Nihoyannopoulos, Jose Zamorano, Document Reviewers:, Mauro Pepi, Ole-A. Breithardt, Edyta Plońska-Gościniak, on behalf of the European Association of Echocardiography, Echocardiography in aortic diseases: EAE recommendations for clinical practice, European Journal of Echocardiography, Volume 11, Issue 8, September 2010, Pages 645–658, https://doi.org/10.1093/ejechocard/jeq056
- 3. Fukui, T. Management of acute aortic dissection and thoracic aortic rupture. J Intensive Care 6, 15 (2018). https://doi.org/10.1186/s40560-018-0287-7