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Aberrant right subclavian artery

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Description

85 F with history of diabetes mellitus, hypertension, coronary artery disease status post percutaneous, came in for witnessed syncopal event by her daughter. Vitals were within normal limits. EKG revealed sinus rhythm with frequent PVC. Ct head showed volume loss secondary to microangiopathic disease with this pattern. X ray chest revealed a prominent aortic arch. CT chest with contrast revealed an aberrant right subclavian artery with irregularity of the lumen separate anterior areas of focal saccular outpouching and a possible flap in the mid thoracic aorta, revealing a non-acute partially thrombosed dissection. MRI head and MRA head and neck were negative for any evidence of stroke. Patient was diagnosed with Transient Ischemic Attack. Lusoria artery or aberrant right subclavian artery is a rare anatomical variation seen in 0.4-1.8% of general population where the right subclavian artery originates from aortic arch distal to the left subclavian and it crossed the midline to the right arm posterior to the esophagus. It is asymptomatic in most cases. However, it can present with symptoms due to compression of adjacent structures leading to dyspnea, dysphagia, stridor or may become aneurysmal. The aneurysmal dilatation of aberrant right subclavian artery origin is called Kommeraell diverticulum, which can also rupture, thrombose or dissect. It can be a possible cause of thromboembolic stroke as in this case. Even if it is asymptomatic, this anomaly should be taken into consideration during surgical procedures around esophagus. Any unintentional injury of this artery during surgical procedures could be extremely life threatening. While performing percutaneous coronary interventions, this anomaly should be suspected if the guidewire repeatedly enters the descending aorta rather than the ascending aorta from the right subclavian, making it difficult or impossible to perform the procedure, and resulting in longer procedure time.

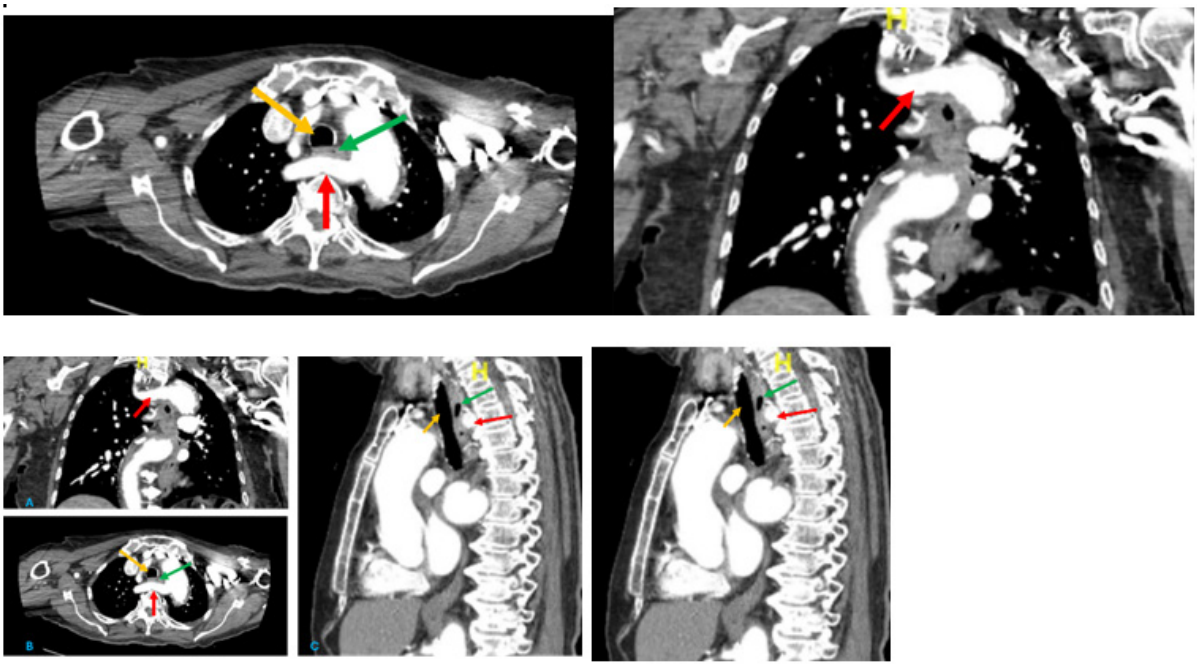

Figure 1: Clinical image.