**Unmasking the Chameleon: A Case Series on Atypical Presentations of Aortic Dissection**

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**Introduction**

Aortic dissection is associated with a high mortality rate. Its clinical presentations are diverse, which makes diagnosis and treatment challenging. We present 2 case reports highlighting the different presentations of aortic dissection in the emergency department (ED).

**Case Report**

The first case involved a 73-year-old asymptomatic who was referred to ED after an incidental finding of mediastinal mass on a chest radiograph as part of the pre-operative assessment for hernia repair. Diagnosis of Standford A aortic dissection was made following an urgent computed tomography (CT) angiogram. The second case presented a diagnostic dilemma, with symptoms overlapping between decompensated heart failure and aortic dissection. A 66-year-old man with underlying diabetes mellitus and hypertension presented with gradual onset of failure symptoms. There are positive findings of heart failure evidenced by the presence of bibasal crepitations and pedal edema on examination. Bedside echocardiography revealed a dilated aortic root. He was treated for congestive heart failure and was started with intravenous diuretics. An urgent CT angiogram revealed Standford A aortic dissection.

**Discussion**

Aortic dissection is a rare but potentially catastrophic entity characterized by a tear in the layers of aortic wall. The clinical manifestation varies and can mimic other conditions, making the process of diagnosis challenging. The symptoms vary widely depending on the location and extent of the tear, ranging from typical tearing type of chest or back pain to more atypical presentation such as dyspnea, syncope and neurological deficits. Hence resulting in diagnostic ambiguity and delays in appropriate management. A systematic review revealed factors leading to delayed diagnosis include the absence of typical features and concurrent conditions such as congestive heart failure and acute coronary syndrome. In addition, more accurate diagnosis is associated with more comprehensive history taking and prompt use of imaging.

**Conclusion**

These cases demonstrate varying presentations of aortic dissection in the ED. It is essential to recognize the atypical symptoms and maintain a high index of suspicion for aortic dissection. Prompt identification and accurate diagnosis play a significant role in positively impacting patient outcomes in aortic dissection.

**Keyword**

Aortic dissection, Atypical presentation