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Cardiac Tamponade due to Dissection of the Aorta

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Introduction
Cardiac tamponade frequently complicates acute proximal aortic dissection and is one of the most common causes of death from aortic dissection. Sixty percent of such patients have an early mortality. The incidence of aortic dissection is estimated to be 5-30 cases per million people per year and most estimates are based on autopsy findings. Risk factors of aortic dissection include; systemic hypertension (90%), cystic medical degeneration in Marfan's Syndrome (10%) and a minority of iatrogenic aortic dissections due to cross clamping, cannulations or incision of the aorta.

Case report
A 56 year old male with acute chest pain radiating to the back along with difficulty in breathing was brought to a base hospital immediately but was found dead on admission. He was a teetotaler and had no personal or family history of significant cardiovascular diseases. Autopsy revealed that he was an average build person with xanthelasma of both lower eye lids. Dissection of the heart revealed a haemopericardium of approximately 500ml. Left coronary artery atherosclerosis had occluded the lumen nearly completely. The left ventricle wall was hypertrophied with a thickness of 3cm. Further careful dissection revealed a dissection of the proximal aorta. Except for hypertrophy, the histopathology of the heart was unremarkable.

Conclusions
Since it is confined to the ascending aorta, this is a Type II aortic dissection. When rupture through adventitia can cause hemorrhage into pericardial sac and sudden death. Absence of cystic medial degeneration and the presence of cardiac muscle hypertrophy, the most probable cause for aortic dissection in this case could be hypertension.