

A PECULIAR CASE OF AORTIC ANEURYSM RUPTURE WITH COARCTATION OF AORTA

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Abstract

Various cases come for medico legal examination and postmortem is done to know the cause of death. However, careful and complete examination can be helpful in finding out exact cause without putting unnecessary pressure on the work of chemical examiner.

Key Words: Heart, Aorta, Coarctation of Aorta, Aortic Aneurysm, Pericardial Tamponade

Case Report

A body of 22 years boy from Bihar came to mortuary having being sifted to mortuary as he was brought dead in the emergency of Rajindra Hospital, Patiala, with no specific history of any fever or disease. After receiving police inquest papers, history of the patient was asked from the close relative. According to the persons living along with that boy, at about 1 AM in night, boy complained of severe epigastric and lower chest pain. In addition, there was no previous history of such pain and there was no history of any other disease or fever.

After listening the statement of the person accompanying, it was looking that it is simple case of Poisoning and relative may be lying to avoid unnecessary complications.

Postmortem was started and external examination almost normal and after giving incision chest and abdomen was opened. Stomach was containing 150 cc semi digested food material and mucosal also normal. Other abdominal organs (Liver, Spleen, Kidneys, Small intestines, large intestines and urinary bladder) were observed and contrary to be congested as in case of poisoning, they were looking slightly pallor. There were signs of pulmonary edema.

Next, the chest was observed and on opening the pericardial sac, the cause of death changed altogether from what we thought and it was clearly seen that pericardial sac was full of clotted blood as well as liquid blood leading Cardiac Tamponade. Then question came from where this blood came into pericardial sac and what was the source of this blood. On further dissection, heart and great vessels were taken out. Heart was enlarged and weighing 450 grams and on cut sections both the ventricles seen

hypertrophied the hypertrophy of pectinate muscles and corde tendinae.

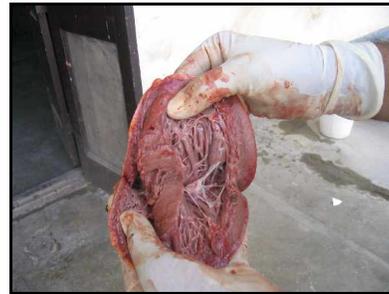


Figure 0-1: Showing hypertrophy of ventricles

Coarctation of aorta present at the starting point of descending aorta along with dilation of ascending aorta. Aneurysm of ascending aorta also seen, up to the origin of right subclavian artery. Ascending aorta had a rupture of 0.4 cm on its right lateral wall. There was also clotted bleeding in the vessel walls due to extravasation of blood into periadventitial area and vessel wall.



Figure 0-2: Showing extravasation of blood



Figure 0-3: Showing clot in pericardial cavity



Figure 0-4: Showing rupture of aorta



Figure 0-5: Showing increased heart weight



Figure 0-6: Showing coarctation of aorta

Discussion

Aortic aneurysm is pathologic dilatation of a segment of blood vessel. A true aneurysm involve all the layers of the vessels whereas pseudo-aneurysm is the one in which the intimal and medial layers are disrupted and dilatation is lined by adventitia only. Aneurysm can occur in any part of aorta. Aneurysm of Abdominal aorta is most commonly associated with atherosclerosis while thoracic aortic aneurysm is commonly associated with the cystic medial necrosis. Aortic dissection can occur in the aneurysm and commonly occurs along the right lateral wall of the ascending aorta. Other common sites of aortic dissection are descending aorta and just below ligamentum arteriosum. Case discussed here had the aneurysm at the right lateral wall, which is the commonest site of the aneurysm. Men are more affected than females with ratio of 2:1. Most common clinical history of sudden onset of pain, which is severe, tearing and is associated with diaphoresis. Pain may be localized in the front or back of the chest.

Coarctation of aorta is narrowing of the lumen of aorta. It is most commonly seen distal to the origin of subclavian artery near the insertion of ligamentum arteriosum as found in this case. This is twice common in males as compared females. This condition is associated with left ventricular hypertrophy as seen in the current case.

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