

Chronic dissecting aneurysm of ascending aorta with a large intramural thrombus and isolated aortic defects

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SUMMARY

We present macroscopic and microscopic findings in a case of chronic dissecting aneurysm of ascending aorta and aortic arch associated with isolated tears of aortic wall without its rupture in a 71-year-old female presenting with minimal clinical symptomatology. Aneurysmal dilation of the aorta was caused not only by the bridging of the vascular wall based on the presence of an organizing intramural thrombus in the false lumen between the separated layers, but also by a wide flat defect in the aortic intima and media with the preservation of the aortic wall integrity due to fibrotical alteration of tunica adventicia. Histologic examination of the thoracic aorta detected cystic medial degeneration with mild atherosclerosis.

Keywords: dissecting aortic aneurysm – aortic dissection – aortic intramural thrombus – medial degeneration – mucoid extracellular matrix accumulation

Chronická disekujúca aneurizma vzostupnej časti aorty s rozsiahlym intramurálnym trombom a izolovanými defektami v stene aorty

SÚHRN

V popisovanom prípade autori dokumentujú makroskopický a mikroskopický pitevný nález chronickej disekujúcej aneurizmy vzostupnej časti aorty a aortálneho oblúka s izolovanými trhlinami v stene aorty bez jej prasknutia u 71-ročnej ženy s minimálnou klinickou symptomatológiou. Aneurizmatické rozšírenie prievitu aorty bolo podmienené nielen vyklenutím cievnej steny na základe prítomnosti organizovaného intramurálneho trombu, ale aj v dôsledku prítomnosti plošného defektu intimy a medie aorty so zachovaním celistvosti obvodu fibroticky zmenenou adventíciou. Histologicky bola v torakálnej aorte zistená cystická degenerácia medie s minimálnymi prejavmi aterosklerózy.

Kľúčové slová: disekujúca aneurizma aorty – disekcia aorty – intramurálny trombus aorty – degenerácia medie – akumulácia mukoidnej extracelulárnej hmoty

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Aneurysm (bulge) is a localized widening (dilation) of the artery that occurs when the arterial wall is significantly weakened (1). More precisely, the aneurysm is defined as an enlargement of the vessel that increases its normal size by more than 50 % (2). Based on their localization, aortic aneurysms can be classified as thoracic, abdominal, or thoracoabdominal (3). Aortic dissection represents a condition, in which the blood from the lumen penetrates aortic media through a defect in the inner layer (intima) and spreads to a various distance in the aortic wall (1,3,4). The term "intramural hematoma" is sometimes used specifically for cases of aortic wall dissection without detected intimal tear and without flow in the false lumen, or more loosely for cases with thrombosed false lumen regardless intimal defects (5). Major factor in the etiology of aortic dissection is arterial hyperten-

sion, and the most common histological pathology in the aortic wall is medial degeneration (6).

Here we present a case of a 71-year-old woman with a medical history of arterial hypertension and chronic ischemic heart disease, who was admitted to the hospital for exertional dyspnea and complaints of chest tightness. CT scan upon her admission revealed an aortic arch aneurysm; nevertheless, the patient died due to cardiac arrest right before the surgery was about to be performed. This case report presents a macroscopic and microscopic autopsy finding of a chronic dissecting aneurysm with isolated aortal tears and a flat fibrous defect without the evident rupture of the aortic wall.

CASE REPORT

The case report presents a case of a 71-year-old woman, who was admitted to the Internal Medicine Clinic due to exertional dyspnea accompanied by the chest tightness, which led to the assumption of an acute coronary syndrome. Her medical history revealed that she was treated for arterial hypertension and ischemic heart disease, other than that it contained information on nephrectomy performed 9 years prior to her death for renal cell carcinoma associated with paraneoplastic hypercoagulability and lung embolism. In the morning of the second day of

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