LYMPHATIC ANEURYSM OF THE HEART

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ABSTRACT

The Annular Subvalvular Left Ventricular Aneurysm (ASLVA) is a rare entity, which occurs usually in young ethnic groups from Sub-Saharan Africa and South India. These aneurysms are situated immediately beneath the mitral and aortic valves and extend around in the substance of fibrous ring, from which valves arise. Their etiology is still obscure.

Fifteen consecutive cases of ASLVA were treated surgically for this heart condition. Their clinical presentations, surgery, histopathology of aneurysmal wall were studied.

Infective diseases with associated mediastinal lymphadenopathy were observed in all patients prior to the time the diagnosis of ASLVA was made. Nine patients had also lymphadenopathy in another region. Sinus of Valsalva Aneurysm was an associated finding in three patients. Dense fibrous tissue was the most common histopathological feature of the aneurysmal wall. Endothelium within the structure of the aneurysmal wall, “compressed” myocardium around the ASLVA wall, dilated and deformed heart lymphatics with lymph extravasation, and lymphatic neovascularization were all found in some histopathology specimens.

Post-inflammatory destruction of mediastinal lymph nodes may obstruct lymph outflow from the heart, cause backwards lymphostasis, damage lymphatic vessels in the heart, and can lead to aneurysm formation. Increased intravascular shear stress triggers release of endothelial growth factors (bFGF, TGF-beta) and leads to neovascularization and tissue fibrosis, the most common feature of aneurysmal wall.