

THE ABSENCE OF LYMPHATICS IN NORMAL AND ATHEROSCLEROTIC CORONARY ARTERIES IN MAN: A MORPHOLOGIC STUDY**O. Eliska, M. Eliskova, A.J. Miller**

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ABSTRACT

It has been suggested by various investigators that the impairment of lymphatic drainage from the coronary arteries may play a role in predisposition to coronary atherosclerosis, the pathogenesis of which is certainly multifactorial. In our study, no lymphatic vessels were found in the walls of the coronary arteries (adventitia, media and intima) in 51 human hearts from patients ranging in ages from 3 months to 83 years with normal coronary arteries, coronary atherosclerosis, and cardiomyopathy. Visualized lymphatics were located solely in the periadventitial area, and these lymphatics were more irregular in hearts from older persons. With injection, histology, and electronmicroscopy methods we could not detect penetration of lymphatics into the wall of coronary trunks in normal as well atherosclerotic arteries. In all coronary arteries studied, and particularly in the atherosclerotic lesions, blood vasa vasorum could be visualized. In the atherosclerotic areas, vasa vasorum (angiogenesis) could be seen penetrating into the media and intima. Many of the thin-walled vasa vasorum could easily be mistaken for lymphatics. The absence of lymphatics draining the epicardial coronary arteries may be a predisposing factor to coronary atherosclerosis.