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Morphological Changes of Grafts in Patients Who Died after Coronary Artery Bypass Graft Surgery from Isolated Coronary Heart Disease and Associated with Hypertensive heart Disease

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Objectives: Vascular graft failure is one of the most common finding in patients undergoing coronary artery bypass graft (CABG) surgery and still remains the major problem after surgery. The aim of the present study was to investigate features of pathomorphological changes in different type of grafts after CABG in patients with isolated coronary artery disease associated with hypertensive heart disease.

Materials & Methodology: Histopathological study was performed on 207 fragments of autopsy sections of autoarterial and autovenous grafts using light microscopy.

Results: It is shown that the condition of the vascular wall depends on hemodynamics leading to degenerative changes of the graft as a result of destructive and proliferative processes in the intima and the middle layer. Active replacement of smooth muscle cells of the media by fibrous tissue and then connective tissues leads to thickness of the vascular wall, stenosis on one hand and on the other hand is a cause of development of unstable atheromatous plaques.

Conclusions: Morphological changes of the venous grafts in patients who underwent CABG and had died after surgery from coronary heart disease associated with hypertensive heart disease were more acute with more aggressive course of atherosclerotic changes with diffuse proliferation of processes and formation of unstable plaques.

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