Endothelial function in patients with glaucoma

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Introduction: Cardiovascular illness are more often observed in glaucoma patients.¹ The purpose of the study was to assess the ultrasound measurements of the brachial artery flow-mediated dilation (FMD) in patients with glaucoma.

Patients and Methods: Thirty-seven patients with glaucoma and thirty-one healthy controls were included in the study. All glaucoma patients and controls underwent ultrasound measurement of FMD of the brachial artery.

Results: The mean values of brachial FMD were significantly lower among glaucoma group compared with control group ($15.3 \pm 9.5\%$ vs $19.8 \pm 9.3\%$; $p=0.04$). No significant difference was found in brachial artery diameter at rest (4.7 ± 0.6 vs. 4.9 ± 0.3 ; $p=0.2$) between glaucoma patients and controls. The significant difference in brachial artery diameter in hyperemia between patients with glaucoma and control group (5.4 ± 0.6 vs. 5.9 ± 0.4 ; $p=0.002$) was detected. A negative correlation among brachial FMD and brachial artery diameter at rest was found.

Conclusion: Impaired brachial FMD could indicate presence of systemic vascular endothelial dysfunction in patients with glaucoma.

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LITERATURE

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