

#5 **RE-EVALUATION OF CAROTID DUPLEX FOR VISUAL COMPLAINTS: WHO REALLY NEEDS TO BE STUDIED?**

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INTRODUCTION: Amaurosis fugax (AF), Hollenhorst plaques, central retinal artery occlusion (CRAO), and nonspecific visual symptoms are all reasons for patient referral for carotid artery evaluation. AF and CRAO have a known association with carotid disease while the Hollenhorst plaque has some uncertainty about its management and predictive value. Additionally, there is little data on the long-term follow-up of carotid disease in patients with Hollenhorst plaques or those with nonspecific visual symptoms. This study reviews the management of patients with visual signs or symptoms based on their clinical presentation, carotid duplex results, follow-up data and outcome.

METHODS: We performed a retrospective review of all patients presenting to the Vascular Surgery Clinic between June 1996 and December 2001 for carotid duplex scanning based on the indication of a visual disturbance. Charts were reviewed for patient demographics, duplex results, risk factors for atherosclerotic vascular disease, and outcome.

RESULTS: 3,560 carotid duplex examinations were performed during the study period. 98 were performed for a visual complaint or finding. Eighteen patients with nineteen Hollenhorst plaques (Group 1), 9 patients with documented CRAO (Group 2), 20 patients with AF (Group 3) and 51 patients with nonspecific visual symptoms (Group 4) were identified. There was no significant difference in risk factors or medication profiles among the four groups. Two of the 18 patients (11.1%) in Group 1, 2 of the 9 patients (22.2%) in Group 2, 9 patients in Group 3 (45%) and 5 patients in Group 4 (9.8%) had significant carotid disease and underwent CEA. No patient who underwent screening carotid duplex and did not have surgically correctable disease developed significant carotid disease or symptoms from carotid disease during the study period (25 ± 13.9 months, 2-49 months).

CONCLUSION: Our results confirm that Hollenhorst plaques and nonspecific visual complaints are a poor predictor of embolic events from the carotid artery. Patients with AF had a significantly higher rate of surgically correctable carotid stenosis. Patients with visual signs or symptoms, particularly AF, need an initial screening carotid duplex examination. If this does not show surgically correctable disease, patients do not need to return for further examinations unless another indication arises.