Carotid Ultrasound and Doppler in the Setting of Acute Coronary Syndrome

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Carotid atherosclerosis is associated with coronary atherosclerosis. Moreover the culprit ruptured and unstable atherosclerotic plaque causing the acute coronary syndrome (ACS), frequently is associated with other unstable coronary plaques remote from the culprit lesion as shown by intra-coronary ultrasound. Aim: Prospective evaluation carotid ultrasound and Doppler findings in patients presenting with ACS.

Methods: Seventy consecutive patients presenting with ACS were evaluated. For all patients carotid ultrasound and complete intrathoracic echocardiographic evaluation were performed. Review and analysis of medical history, drug treatment, blood laboratory results were undertaken.

Results: Intima-media thickness was greater than normal in almost all subjects. The prevalence of carotid plaques was significantly greater in patients with aortic regurgitation 64% versus 36%, p<0.05. Carotid ruptured plaques were not encountered. Significant associations between patient presentation, drug treatment, laboratory results and carotid ultrasound findings were not found.

No significant association was found between distribution of atherosclerotic lesions in the coronary arteries and the carotid findings.

Conclusions: Intima-media thickness was increased in patients with ACS. Carotid atherosclerotic plaques were more prevalent in patients with aortic regurgitation.