Incidence of Carotid Wall Irregularities in Acute Ischemic Stroke Patients: A Descriptive Analysis

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Abstract:

Background: Carotid wall abnormalities are significant predictors of cardiovascular events, including ischemic stroke. Identifying the clinical and biochemical risk factors associated with these abnormalities can aid in early intervention and prevention strategies. This study aimed to assess the association between lipid profiles, age, gender, smoking habits, hypertension, and carotid wall abnormalities in patients.

Methodology: A cross-sectional study was conducted on 60 patients, evaluating their clinical and biochemical profiles, including lipid levels, age, gender, smoking status, and the presence of hypertension. Carotid intimamedia thickness was measured using ultrasound to identify carotid wall abnormalities. The data were analyzed to determine the associations between these factors and the presence of carotid wall abnormalities.

Results: Carotid wall abnormalities were present in 78.3% (n = 47) of the patients. Individuals with carotid wall irregularities exhibited markedly elevated total cholesterol concentrations (175 ± 35.0 mg/dl) compared to those without abnormalities (150 ± 31.0 mg/dl) (p = 0.007). The mean age was 64.0 ± 8.0 years in the abnormality group versus 56.0 ± 5.0 years in the non-abnormality group (p = 0.008). Males constituted 80.0% of the abnormality group, compared to 46.7% in the non-abnormality group (p = 0.03). This higher prevalence of carotid wall abnormalities in males could be related to