



▼ POST GRADUATES ABSTRACTS

PG - 52 : CAROTID DOPPLER EVALUATION OF TRANSIENT ISCHEMIC ATTACK AND STROKE PATIENTS AND ITS CORRELATION WITH CT SCAN HEAD

**Raju M.V.S, Final Year Postgraduate,
Vijayalakshmi.K, Lokesh Kumar.T, Nagaraj B.R**
Department of Radiodiagnosis,

Mahatma Gandhi Medical College & Research Institute, SBV, Pondicherry

Background: Stroke is one of the most common debilitating diseases with a huge burden related to both mortality and morbidity. Ischemic stroke is far common compared to haemorrhagic stroke and it is also associated with significant carotid stenosis. Hence this present study is carried out to evaluate all the aspects of this disease.

Objectives: To Evaluate stroke and TIA patients with carotid ultrasound Doppler to look for Intima Media thickness, presence of plaque and characterization of plaque (type, surface and site), spectral waveform analysis and percentage of stenosis. To find out the prevalence of carotid artery stenosis in stroke patients and TIA patients. Observation/Correlation between percentage stenosis (carotid USG) and infarct size on CT. To find out if there is any association between carotid artery lumen IMT and stenosis with age, hypertension and diabetes. **Design:** Cross sectional single centre study. CT-scan and Carotid Doppler studies on patients admitted into our institution with signs and symptoms of stroke. A detailed and thorough history, physical examination and investigations were performed, studied and noted.

Results: Out of 75 patients who are clinically diagnosed to have stroke, 55 patients showed small infarcts and 20 showed large infarcts in the CT-Scan. 75 patients

underwent Doppler Ultrasonography of the Carotid Arteries. The prevalence of the carotid stenosis in this study is 38.7% (29 out of 75 had stenosed carotids). In this study, 90.5% of patients with <50 % stenosis had small infarct on CT head, while only 9.5% of these patients had large infarct. 62.5% of patients with >50% stenosis had large infarct on CT scan head, just 37.5% of these patients had small infarct.

Conclusion: Carotid stenosis is one of the common causes of ischaemic stroke. 38% of ischaemic stroke patients had carotid stenosis in our study. -The prevalence of carotid stenosis increases with increase in age, male gender, diabetes mellitus and Hypertension. A simple, non-invasive screening procedure like Doppler sonography of the carotid arteries in high risk individuals could therefore have profound diagnostic and therapeutic implications in predicting and preventing a potentially fatal and devastating stroke. The present study has shown that Carotid Doppler is an important non invasive diagnostic tool. It can be used for screening in high risk asymptomatic patients, patients with history of cerebrovascular events and for determining treatment protocol. Thus it should be used as a first line investigation in these patients supplemented by Magnetic Resonance Angiography whenever required and angiography should be used only in equivocal cases.