Neuroimaging in young stroke: A hospital based study

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**Aims & Objectives:** The aim of the study was to diagnose and categorize stroke in young patients with CT or MRI and find out the risk factor prevalence and etiology for young stroke with the help of clinico-biochemical parameters and imaging study.

**Materials & Methods:** A hospital based observational study was conducted over a period of 1 year which included 50 patients who underwent CT scan on a dual slice scanner and/or MRI examination on a 1.5T MR scanner. Cases were diagnosed and classified on the basis of radiological findings and clinico-biochemical parameters. Data was analyzed using SPSS Version 16.

**Results:** Hypertension was the commonest risk factor. 23 cases of ischemic stroke, 18 cases of intraparenchymal hemorrhage, 4 cases of venous stroke, 3 cases of subarachnoid hemorrhage and 2 cases of mixed stroke having both hemorrhagic and ischemic elements were encountered. Cardioembolism resulted in most of the cases of ischemic stroke. Underlying vascular malformation resulted in most of the cases of intraparenchymal hemorrhage. An underlying aneurysm was noted in all cases of subarachnoid hemorrhage. A possible etiology was found in only 1 case of venous stroke (CSOM with chronic mastoiditis with ipsilateral transverse/sigmoid sinus thrombosis). Among the 2 cases of mixed stroke, 1 was a hypertensive and the other had infective endocarditis with intracerebral mycotic aneurysm.

**Conclusion:** Ischemic stroke in young is commonly due to cardiogenic cause or premature atherosclerosis. Structural anomalies cause most of the IPH. Venous stroke is frequently encountered in young patients. Aneurysmal SAH should be thought of in any young patient presenting with stroke without any obvious risk factors. Mixed stroke can be encountered in this age group.

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