

## Clinical evaluation of 620 lacunar syndrome patients

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### Abstract

**Aim:** Lacunar syndromes consist of a group of characteristic clinical presentations that are usually compatible with a small deep infarct. Validation of these syndromes could help neurologists predict the prognosis and type of cerebrovascular disease. **Materials and Methods:** Consecutive stroke patients on 2 Iranian stroke registries compiled between 2001 and 2007 were enrolled in this prospective validation study. Lacunar syndromes were defined as pure motor, pure sensory, mixed sensory motor, ataxic hemiparesis, dysarthria clumsy hand, and atypical subtypes. All of the patients with ischemic stroke had at least one brain CT scan performed 48 h after stroke. Patients whose CT scan showed a corresponding lacuna and patients with no visible new lacuna or other new lesion were assumed as appropriate to the lacunar infarction. **Results:** Lacunar syndrome was observed in 620 patients (286 female, 334 male; mean age: 68.00 ± 8.9 years), accounting for 21.3% of the patients on our stroke registry. Lacunar syndromes were detected with a sensitivity of 83.7%, specificity of 96.0%, PPV of 87.8%, and NPV of 90.4% (CI: 90%). Brain CTs of 046 patients (87.4%) were appropriate to lacunar infarct. All subtypes of lacunar syndrome had more than 97% specificity. Pure motor and mixed sensory motor syndromes were associated with a PPV of 82.9% and 81.0%, respectively. Pure sensory syndrome, ataxic hemiparesis, dysarthria clumsy hand, and atypical lacunar syndromes had a PPV of 96.6%, 97.0%, 100%, and 90.4%, respectively. **Conclusions:** Lacunar syndromes have moderate to high sensitivity and high specificity for the detection of lacunar brain infarction. Brain CTs in 12.6% of patients with lacunar syndrome did not correspond with lacunar stroke. © TÜBİTAK.

## Reaxys Database Information

### Author keywords

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### Indexed Keywords

Brain infarction; Cerebrovascular disease; Clinical evaluation; Clinical presentations; CT scan; Dysarthria; Hemiparesis; High sensitivity; High specificity; Ischemic strokes; Lacunar syndrome; Mean ages; Sensitivity; Sensory motors; Specificity; Stroke patients; Validation study

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**Engineering main heading:** Motors

**EMTREE medical terms:** aged; article; brain infarction; cerebrovascular accident; cerebrovascular disease; clinical feature; computer assisted tomography; diagnostic accuracy; dysarthria; female; hemiparesis; human; Iran; Lacunar Syndrome; major clinical study; male; prognosis; prospective study; register; stroke; syndrome; validation study

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