

## Original Paper

# Silent stroke and related risk factors

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## Abstract

**Background and Objective:** The silent brain infarctions are common in first-ever stroke. Some recent studies show the possible role of silent brain infarction in ischemic stroke. The aim of this study was to evaluate the frequency of silent brain infarction in acute first-ever ischemic stroke and its association with stroke risk factors.

**Materials and Methods:** This descriptive - analytical study was carried out on 203 (94 males, 109 females) patients with acute first-ever ischemic stroke in Shafa hospital in Kerman, Iran during 2010. The diagnosis of ischemic stroke was made by physical examination and was confirmed by MRI and CT Scan. A questionnaire containing demographic information and risk factors including hypertension, diabetes, hyperlipidemia, cigarette smoking, ischemic and non-ischemic heart disease for stroke as well as presence of silent stroke was completed for each patient. Data were analyzed using SPSS-16 and logistic regression test.

**Results:** The mean age of patients was 62.56±17.35 years. Among our patients history of hypertension, hyperlipidemia, cigarette smoking, diabetes, history of ischemic heart disease, history of other cardiac disease and silent stroke were observed in 66 (32.5%), 26 (12.8%), 16 (7.9%), 40 (19.7%), 27 (13.3%), 16 (7.9%) and 31 (15.3%), respectively. The probability of silent stroke among patient with hyperlipidemia, was 3.7 times more than those without hyperlipidemia (95%CI: 1.556-12.780, P<0.05). There was no significant correlation between silent stroke and the above risk factors.

**Conclusion:** Silent stroke was found in 15% of patients with ischemic stroke. Control of hyperlipidemia can have a vital role in the prevention of silent stroke.

**Keywords:** Silent Stroke, Hypertension, Diabet, Hyperlipidemia, Cigarette smoking, Ischemic heart disease, Non-ischemic heart disease

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