



## Rheumatic Disease Frequency in Hospitalized Acute Stroke Patients

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### Abstract

Rheumatic diseases (RD) have increased risk for stroke. We examined the records of acute stroke patients for concomitant diseases. Two of 178 patients had gout, no other RD was detected. Considering the result of our study and current evidence in the literature, we suggest that patients with gout should be monitored closely for the risk of stroke and the clinician should be aware of higher risk of stroke in these patients.

### Keywords

Rheumatic disease, Stroke, Gout, Inflammation

### Letter

Patients with rheumatic diseases (RD) have increased risk for cardiovascular and cerebrovascular diseases when compared with the general population [1,2]. The possible explanation of this increased risk is the high level of inflammation in RD which plays a major role in the pathogenesis of atherosclerosis [3].

We searched the incidence of RD in acute stroke patients and we had investigated retrospectively the records of the acute stroke patients hospitalized in Neurology Department for one-year duration, between January and December. We documented the demographic data, types of stroke as ischemic or hemorrhagic and the accompanying diseases. Statistical analyses (descriptive and frequency analyses) were done by SPSS 10.0.

A total of 178 patients were hospitalized during the period. The mean age was  $67 \pm 12$  years (range 35-98 years). The female/ male ratio was 1/1 and 77.5% of the

cases had ischemic type of stroke. Hypertension, ischemic heart disease, diabetes mellitus, atrial fibrillation, dyslipidemia, and asthma were the common concomitant diseases. Two patients had preexistent diagnosis of gout. One of them was an 80-year-old male with hypertension and asthma, and had ischemic stroke. The other patient was a 57-year-old female who experienced hemorrhagic stroke and had hypertension as accompanying disease. No other inflammatory rheumatic disease was detected in patients' records.

Rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis, systemic lupus erythematosus, and gout were determined as carrying high risk of stroke in a recent meta-analysis [3]. Unlike other mentioned rheumatic diseases with increased tendency to atherosclerosis, gout has been suggested to have a different mechanism for possessing increased stroke risk and it is related to metabolic syndrome and high uric acid levels. Uric acid was found to be strongly associated with both coronary heart disease and stroke in a community-based study [4].

The sample size of the study was not enough to get certain results to reveal a relationship between RD and stroke, but considering the results of our study and current evidence in the literature, we suggest that patients with gout should be monitored closely for the risk of stroke and the clinician should be aware of higher risk of stroke in these patients. Investigations about this issue with large population may suggest the importance of gout as a risk factor for stroke independently of hypertension.

## References

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