# POST-STROKE INFECTION: CLINICAL AND IMMUNOLOGICAL STUDY

#### **Thesis**

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By

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#### **ABSTRACT**

**Background:** Infections are leading cause of death in patients with acute stroke. Recent studies indicate that stroke leads to changes in the immune system which predisposed to infection. Aim of work: The objectives of this study are to define the contribution of specific populations of lymphocytes; CD4+CD25 (T-regulatory cells) lymphocytes; to post-stroke infection, their relation to degree of neurological deficit associated with stroke. Patients and Methods: Twenty-five patients with acute ischemic stroke subjected to clinical assessment and NIHSS score and flowcytometric analysis for T-regulatory cells. Results: T-regulatory cell were statistically significant higher in stroke patient compared to the control group. Seven patients with acute stroke developed infection six had chest infection and one had urinary tract infection. Patients with infection have statistically significant higher NIHSS scale. No significant differences were encountered between stroke patients with and without infection in CD<sub>4</sub>, CD<sub>25</sub> and CD<sub>4</sub> CD<sub>25</sub> ratio **Conclusion:** Infection prevalent in stroke patient, immune changes was documented in stroke patient but not in patient with and without infection.

# **Keywords:**

Acute ischemic stroke Infection Clinical immunology