

Clinical and experimental study on the role of central and peripheral nitric oxide in stroke in diabetic and non-diabetic patients. The protective effect of allopurinol

By

H. Fathy, M.E. Mansour*, Younous Anis Bin-Taleb

Departments of Neurology and Pharmacology,*

Benha Faculty of Medicine,

Zagazig University, Egypt .

Abstract

The present work was designed to study the role of central and peripheral nitric oxide (NO) in patients with cerebrovascular insult, and to study the effect of allopurinol (300 mg twice daily for two weeks) on free radical production. Moreover, to study the effect of allopurinol in preventing and/or reducing the size of infarction in focal cerebral ischemia in rats.

Results of the present work revealed that the serum levels of nitric oxide metabolites (NOx) (umol/L) were significantly decreased ($P \leq 0.05$) in groups A1 (patients with ischemic stroke and diabetes mellitus), B1 (Patients with hemorrhagic stroke and DM), B2 (Patients with hemorrhagic stroke without DM) and was significantly increased ($P \leq 0.05$) in group A2 (patients with ischemic stroke without DM) compared with healthy group. Serum uric acid (mg/dL) was significantly increased ($P \leq 0.05$) in groups