



## **Cerebral Computed Tomography CT angiography findings in Iraqi patients presenting with stroke**

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**Abstract:Background:** Variance in the distribution of cerebral atherosclerosis in different races is thought to be a result of differences in vascular risk factor profiles, lifestyles, and genetic susceptibility.

**Aim of study:** Aimed to investigate the risk factor stratification of intra and extra cranial vascular stenoses in Iraqi patients with different distributions of cervicocerebral lesions.

**Patients and Methods:** A prospective study enrolled 54 patients with acute stroke, they were in Babylon-Iraq during a period between December 2014 and Oct. 2016. They were divided into two groups according to the type of stroke (ischemic and non ischemic or haemorrhagic) then the ischemic group divided into two groups according to the site of stenosis of cervicocerebral arteries (extracranial and intracranial), then comparison of age, gender, risk factors and severity with site of lesions was done between the extracranial and intracranial groups. All the patients underwent multi-slice CT angiography of carotid and cerebral arteries using a 64-slice helical CT, lesions  $\geq 50\%$  stenosis were considered significant. Patients with clear embolic source have been excluded from the study. P-value  $< 0.05$  had statistical significance.

**Results:** This study had enrolled 54 patients with acute stroke the mean of their ages is  $49.1 \pm 16$  years 34 patients (62.9%) were male, 20 patients (37.1%) were female, 47 patients (87%) were diabetics, 42 patients (77.7%) were hypertensive, and 37 patients (68.5%) were smokers. Forty four patients (81.5%) with ischemic stroke and 10 patients (18.5%) with non ischemic stroke. DM, hypertension and smoking are proved statistically as risk factors in Iraqi patients with ischemic stroke. Thirty eight patients (86%) of ischemic group have cervicocerebral lesions from which 26 patients (59%) extracranial and 12 patients (27%) intracranial p value  $< 0.05$ , from those (ischemic group) 10 patients (22.7%) with extracranial significant stenosis and 4 patients (9%) with intracranial significant stenosis T value 1.5667, p value 0.04. There is no difference in risk factors between intracranial and extracranial lesions.

**Discussion and conclusion:** This study proves that Iraqi peoples are susceptible to develop stroke whether ischemic or hemorrhagic at ages younger than other Asian peoples and European peoples which may be related to racial cause or related to Iraqi dietary habit which is high salt and high fat in addition to Iraqi sedentary lifestyle, also this study proves that diabetes mellitus, hypertension and smoking are risk factors to ischemic stroke, and extracranial cervicocerebral arterial stenosis are more common than intracranial lesions. So we recommend Iraqi people to give special attention to low salt low fat diet with regular sport and smoking cessation with good control of DM and hypertension.