

# **STUDY ON PREVALENCE OF CAROTID ARTERY STENOSIS AND ITS ASSOCIATION WITH RISK FACTORS IN ACUTE ISCHEMIC STROKE**

## **Background**

Stroke is a leading cause of mortality and morbidity all over the world. The incidence of cerebrovascular disease increases with age and the number of strokes is projected to increase as the elderly population grows. It is the second leading cause of mortality and fourth leading cause of morbidity worldwide. Stroke is responsible for millions of deaths in developing countries and is the major cause of mortality and morbidity in Asian countries like India. Doppler ultrasound being a non invasive and inexpensive method is used to assess the carotid artery stenosis in patients who presented with neurological deficit with CT/MRI evident of acute ischemic stroke. Demonstration of significant carotid stenosis may suggest the need for further investigation and for carotid end-arterectomy or stenting to prevent further strokes. Carotid artery stenosis associated risk factor need to be identified. Modifiable risk factors should be taken care of for better patient outcome.

## **Aims and objectives**

1. To study the prevalence of carotid artery stenosis in acute ischemic stroke.
2. To find out whether there is any association between carotid artery stenosis and risk factors such as diabetes mellitus, hypertension, hyperlipidemia, smoking and age in acute ischemic stroke patients

## **Materials and methods.**

100 Patients attending outpatient/inpatient department under medicine in Tirunelveli medical college and hospital with neurological deficit with CT/MRI evidence of acute ischemic stroke

## **Results**

In this study out of the 100 patients with ischemic stroke studied 36% patients had carotid artery stenosis. Among the 36% percentage 22% had stenosis with significant flow changes. Age, hypertension and smoking are found to be significant risk factors in patients with carotid artery stenosis in ischemic strokes. Mean age in the patients with carotid artery stenosis with ischemic stroke is 65.47. No significant association between Diabetes, gender and hyperlipidemia in patients with carotid artery stenosis in ischemic stroke patients.

## **Conclusion**

The prevalence of carotid artery stenosis in acute ischemic stroke is 36%. Age, hypertension and smoking are found to be significant risk factors in patients with carotid artery stenosis in ischemic strokes.

**Keywords** – carotid artery stenosis, Doppler, ischemic stroke