

Older age and duration of exposure to type 2 diabetes in selective screening of asymptomatic carotid artery stenosis for primary stroke prevention - a experience single institution

ABSTRACT

Aims: To evaluate the incidence and risk factors for carotid artery stenosis amongst asymptomatic type 2 diabetes from a single Malaysian tertiary institution. **Methods:** This is a prospective cross-sectional study of asymptomatic type 2 diabetics selected from the outpatient ophthalmology and endocrine clinics for carotid duplex ultrasound scanning performed by a single radiologist. The duplex ultrasound criteria were based on the North American Symptomatic Carotid Endarterectomy Trial (NASCET) classification of carotid artery stenosis. Univariate and multivariate analysis was performed to identify possible risk factors of carotid artery stenosis. **Results:** Amongst the 200 patients, the majority were males (56%) and Malay predominance (58.5%). There were 12/200 patients (6%) with mean age of 69.2 years identified to have carotid artery stenosis. Univariate analysis of patients with asymptomatic carotid artery stenosis identified older age of 69.2 years ($p = 0.027$) and duration of exposure to diabetes of 17.9 years ($p = 0.024$) as significant risk factors. **Conclusion:** Patients with longer exposure of diabetes and older age were risk factors of carotid artery stenosis in asymptomatic type 2 diabetics. These patients should be considered for selective screening of carotid artery stenosis during primary care visit for early identification and closer surveillance for stroke prevention.

Keyword: Carotid stenosis; Epidemiology; Stroke; Diabetes mellitus; Carotid