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Epidemiology of Cerebrovascular Disease Among Chinese-Canadians: A Ten Years Retrospective Study



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Asians are commonly known to have more intracranial vascular stenosis and a lower incidence of carotid stenosis than Caucasians (Brust, 1975). A preliminary retrospective study between 1990-1992 (Chu, 1993) had demonstrated that Chinese-Canadians have a higher incidence of subcortical infarctions and lower incidence of carotid stenosis when compared to Caucasians. This report is a retrospective study over 10 years (1990-1999) on the epidemiological characteristics of cerebrovascular disease among a cohort of Chinese-Canadian patients seen in a consultative Neurological practice in Toronto.

There were 110 Chinese-Canadians and these were compared to 92 Caucasians. Their mean age of onset was 64 years (range 27-89) and their average duration of symptom was 1.84 years. Their stroke severity were 14 severe, 71 moderate and 25 mild with 4 deaths. 55 cases were right hemispheric, 48 involved the left hemisphere while 7 were bilateral. Stroke types based on CT scan showed a statistically significant difference with Caucasians having more cortical infarcts than Chinese-Canadians (50% vs. 25.5%, P < 0.05). Only 6.4% of the Chinese-Canadians compared to 32.6% of Caucasians had carotid stenosis (P < 0.05). The other significantly different stroke risk factors were the higher incidence of smoking (P < 0.025) and hyperlipidemia (P < 0.05) among the Chinese-Canadian patients.

This 10 years retrospective study among the Chinese-Canadian patients with cerebrovascular disease identifies important epidemiological factors that may be responsible for their stroke characteristics. Continuing efforts to educate and raise the awareness of stroke risk factors within this community should be an important and achievable goal of the Chinese Canadian Council, Heart and Stroke Foundation of Ontario. Further research in the genetic, life-style and dietary factors among successive generations of Chinese-Canadians would be vital in understanding how these factors contribute to the various stroke types and the incidence of carotid stenosis.