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## 7<sup>th</sup> Malaysia Indonesia Brunei Medical Sciences Conference "TOWARDS A HOLISTIC AND INTEGRATIVE APPROACH IN HEALTHCARE"



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## THE PREVALENCE OF CAROTID ARTERY STENOSIS IN PATIENTS WITH CORONARY ARTERY DISEASE IN OUR LOCAL SETTING - UNIVERSITI KEBANGSAAN MALAYSIA MEDICAL CENTRE

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### Background:

There is still lack of information regarding the prevalence of carotid artery stenosis in patients with coronary artery disease among Malaysian population. Therefore, this study was conducted to investigate the prevalence and the correlation with vascular risk factors.

### Materials and Methods:

The study population consisted of 73 patients with coronary artery disease diagnosed via coronary angiography at Universiti Kebangsaan Malaysia Medical Centre (UKMMC) from November 2010 until April 2011. These patients were then subjected to carotid arteries Echo-Doppler ultrasonography and an area of stenosis > 50% was considered significant. The patients' risks factors were obtained from the medical records.

### Results:

The prevalence of carotid artery stenosis among 1-, 2-, 3-vessel coronary artery disease were 0 of 14 (0%), two of five (13.33%), 10 of 44 (22.73%) respectively with  $p=0.127$ . Only three of eight (37.5%) left main stem disease patients have significant carotid stenosis ( $p=0.088$ ). Thus, the prevalence increased with the number of coronary artery vessels involved. In relation with the risks factors, only hyperlipidaemia showed a significant association with carotid artery stenosis ( $p=0.018$ ). This study was unable to prove any significant correlation with other risk factors such as diabetes mellitus ( $p=0.134$ ), hypertension ( $p=0.407$ ), chronic kidney disease ( $p=0.070$ ) and smoking status ( $p=0.303$ ). Among multi-ethnicity, Indians had the highest prevalence of 28.57% followed by Chinese 20.69%, and Malays 11.43% ( $p=0.539$ ).

### Conclusion:

In conclusion, the prevalence of carotid artery stenosis in coronary artery disease patients was high in Malaysia as compared to other Asian countries with a significant association with hyperlipidemia.

### Keywords:

Coronary artery disease, carotid artery stenosis, coronary angiography, Doppler ultrasonography, atherosclerosis