

ETIOLOGY OF SUBARACHNOID HAEMORRHAGE IN SINGAPORE

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SING MED J. 1988; 29: 419

Dr C P Chee is to be commended for writing this timely article on subarachnoid haemorrhage in a Malaysian population.⁽¹⁾ A few comments on this neurovascular problem in our two populations will be made.

In his report of 84 patients with subarachnoid haemorrhage within a 8 year period, only 48 patients (57%) had angiograms. Sixty-one percent of the 36 patients who did not have angiogram were worse than neurological grade III. In a study by Dr Robert Kwok, radiologist, on 340 patients with subarachnoid haemorrhage at the Department of Neurosurgery, Tan Tock Seng Hospital between January 1982 to December 1983, 280 patients (82%) had cerebral angiograms. It is generally agreed in our Department that Grade III patients should undergo angiograms unless contraindicated by old age or high anaesthetic risk.

In the Malaysian study of 48 angiograms 54% was positive with 42% aneurysms and 15% arteriovenous malformation. In the Singapore study of 280 patients with angiograms, 153 patients (54%) was positive with 82 patients (29%) aneurysms and 66 patients (23%) arteriovenous malformation; 5 patients (2%) had other vascular lesions.

Basing on the reported incidence of 10.9 per 100,000 population per year in the West, one would expect an incidence of 250 patients with subarachnoid haemorrhage in a Singapore population of 2.5 million. However, we see only about 340 patients in two years. Are we missing out on another 160 cases? Excluding private hospitals, our Department manages virtually all patients with subarachnoid haemorrhage in Singapore Government Hospitals, and hence our patients will presumably be almost a true reflection of the Singapore population. In the Malaysian context, with an estimated population of 15 million, one would expect an incidence of 1500 patients with subarachnoid haemorrhage per year.

In the Cooperative Study mentioned, the incidence of clinically evident intracranial arteriovenous malformation is about one-seventh that of saccular aneurysm, but others here suggested a more conservative figure. It is very clear that in Singapore and Malaysia, aneurysms are still more common than arteriovenous malformation although not in the high proportion of 76% as in the West, and that arteriovenous malformations are more common here than in the West with a 2% incidence of subarachnoid haemorrhage being due to arteriovenous malformations.

Why is this so? Is it because our population is congenitally more prone to arteriovenous malformation? Is it because we are missing out the aneurysms? Or is it because the stress of modern life in a longer life-span has still to catch up locally in producing more aneurysms? My personal feeling is the latter two reasons. Perhaps with a better informed medical profession and public, and better facilities and personnel in the neurosurgical field in the future, the statistics may change and hopefully give us a deeper insight into this issue.

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