

Low cholesterol, statin therapy, and intracerebral haemorrhage

To the Editor—It is well known that cholesterol is essential for normal membrane fluidity, and adequate cholesterol levels seem to be important for maintaining the integrity of small cerebral vessels and their resistance to rupture. Although epidemiological studies have failed to associate cerebral infarction and cholesterol, they have found an inverse relation between cholesterol levels and the incidence of intracerebral haemorrhage.¹ Furthermore, in a Japanese population there has recently been a report describing a significant association between low low-density lipoprotein cholesterol levels and increased risk of death due to intraparenchymal haemorrhage.²

Beyond reducing cholesterol levels, statin drugs may decrease platelet aggregation and hence thrombogenesis,³ making the risk of intracerebral haemorrhage particularly worrisome in statin-treated patients. In this setting, results from statin trials are mixed. Statin treatment has been associated with an increased risk of haemorrhagic stroke in patients with a history of cerebrovascular disease, but not in

subjects without a prior history of stroke.⁴ However, the mean duration of follow-up in statin trials has been relatively short, and usually no longer than 5 years.⁴ Longer exposure to low cholesterol levels might be necessary to alter the integrity of small cerebral vessels, which might become a clinically significant issue if aggressive cholesterol lowering is sustained over prolonged periods. This might be particularly striking for Asians, a population at higher risk for intracerebral haemorrhage.

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