

Symptomatic carotid occlusion.

Pathogenesis

The relative importance of hemodynamic factors in the pathogenesis and treatment of [stroke](#) in patients with [carotid artery occlusion](#) remains controversial ¹⁾.

Hankey and Warlow reviewed in 1991 twelve [prospective](#) follow-up studies of angiographically documented symptomatic [carotid artery occlusion](#) in a total of 1,261 [patients](#) who were followed up over a mean period of 45.5 months. The average risk of [death](#) was 9.5% per year (95% [confidence interval](#) (CI): 8.4–10.7%), the risk of [stroke](#) was at least 7.0% per year (95% CI: 6.2–7.7%) and the risk of stroke ipsilateral to the [carotid](#) occlusion was 5.9% per year (95% CI: 4.3–7.5%). The true risk of death and stroke has probably been underestimated in this review because of probable underreporting of non-stroke deaths, symptomatically mild strokes and stroke in vascular territories outside that of the occluded carotid artery. However, the proportion of strokes occurring ipsilateral to the occluded carotid artery may have been overestimated because some studies only reported the rate of ipsilateral stroke and not the rate of stroke in vascular territories outside that of the occluded carotid artery. The nature and severity of the presenting ischaemic symptoms did not appear to have a significant impact on prognosis. The mechanisms of stroke ipsilateral to the occluded carotid artery probably include embolism from the proximal stump through the collateral circulation, thrombo-embolism from propagated distal thrombosis and haemodynamic insufficiency. These results have been derived from methodologically heterogeneous studies and can only be used as an approximate guide to prognosis. Nevertheless, it is clear that carotid occlusion is not a stable condition, and patients should benefit from measures aimed at the prevention of subsequent major cardiovascular as well as [cerebrovascular](#) events ²⁾.

¹⁾

Grubb RL Jr, Derdeyn CP, Fritsch SM, Carpenter DA, Yundt KD, Videen TO, Spitznagel EL, Powers WJ. Importance of hemodynamic factors in the prognosis of symptomatic carotid occlusion. JAMA. 1998 Sep 23-30;280(12):1055-60. PubMed PMID: 9757852.

²⁾

Hankey G, J, Warlow C, P, Prognosis of Symptomatic Carotid Artery Occlusion. Cerebrovasc Dis 1991;1:245-256

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