

# Management of Asymptomatic Extra & Intracranial Artery Stenosis



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Asymptomatic stenosis in the extracranial or intracranial artery has been associated with an increased risk of stroke. In the Asymptomatic Carotid Trial I, no significant difference was found between carotid endarterectomy and stenting with embolic protection for the treatment of atherosclerotic carotid bifurcation stenosis with regard to the primary composite end point in patients with asymptomatic severe carotid artery stenosis of 70 to 99% of the diameter of the artery who were at standard risk for surgical complications. However, advances in medical treatment have resulted in a reduction in the annual risk of a stroke among asymptomatic patients with medical therapy to less than 1%. Therefore, the balance of risks and benefits of revascularization in the setting of modern optimal medical therapy is being reassessed in ongoing important new randomized trials.

In Asia, intracranial atherosclerotic stenosis (ICAS) is most prevalent and accounts for approximately 30% to 50% of all strokes. In symptomatic high-risk patients with ICAS, aggressive medical management (antiplatelet therapy, intensive management of vascular risk factors, and a lifestyle-modification) was superior to percutaneous transluminal angioplasty and stenting (PTAS) with the use of the Wingspan stent system. Therefore, it is reasonable to consider optimal medical therapy for the first step treatment in asymptomatic patients with ICAS. An individualized approach or precision medicine perspective based on the recently developed imaging techniques and results of novel biomarkers may be beneficial for asymptomatic patients with ICAS.

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**Key Words:** Asymptomatic stenosis, Intracranial stenosis, Carotid stenosis

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