

Author's reply to letter from Naylor and Saratzsis

We thank Naylor and Saratzsis for their interest in our paper. However, we take issue with the concept that only patients with 70-99% stenosis might be considered for intervention. There were several reasons for choosing to examine restenosis of greater than 50% in ICSS. Firstly, the analysis of the symptomatic carotid surgery trials showed that selected patients with 50 to 69% stenosis benefited from endarterectomy in terms of preventing stroke. Secondly, there is no evidence to show that the degree of asymptomatic carotid stenosis (if above 60%) predicts benefit from endarterectomy in terms of preventing stroke. Finally, the mechanisms of stroke associated with restenosis were uncertain and thus no predictions could be made concerning the impact of restenosis severity on future risk. As it turned out, we demonstrated that restenosis to 50% or more was a risk factor for recurrent stroke, particularly after carotid endarterectomy. Nevertheless, we agree with Naylor and Saratzsis that the results of the ICSS study and their meta-analysis provide re-assurance that the long-term rates of stroke associated with restenosis after carotid revascularisation are low.

We agree that the benefits of routine carotid ultrasound surveillance after revascularisation are uncertain, but ideally the risks and benefits of surveillance and re-treatment of those with restenosis should be tested in a randomised trial. The majority of patients developing restenosis in ICSS did so within the first year after treatment and therefore such a trial might only need to carry out surveillance and randomisation at one year after revascularisation.

One issue that was not addressed in the meta-analysis performed by Naylor and Saratzsis's group was the problem that different trials have used different ultrasound cut-offs for defining restenosis. We plan an individual patient data meta-analysis from the main trials of stenting versus endarterectomy within the Carotid Stenosis Trialists' Collaboration to examine restenosis rates using time-to-event analyses in which we will explore the usefulness of several velocity cut-off levels. Thus more data should become available to inform this important debate.

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