Letter by Naylor Regarding Article, “Very Urgent Carotid Endarterectomy Confers Increased Procedural Risk”

To the Editor:

The Swedvasc report, which identified a 4-fold excess risk of death/stroke after carotid endarterectomy when performed <48 hours of the index event, is welcome, timely, and informative. The natural reaction will be to use these data to justify delays to intervening within 48 hours, but this might be inappropriate. It is not surprising that the risks of intervening so early after onset of symptoms were higher than for deferred cases (11% in this series of 148 patients), but nearly 12% presented with crescendo transient ischemic attacks (otherwise regarded as having a higher risk of recurrent stroke) and it is likely that most (all) had luminal thrombus overlying disrupted plaques that were more likely to embolize during the dissection phase of the procedure.

The key issue, however, is not whether these risks are too high, but more whether the natural history risks of stroke were similarly high (or higher) during this hyperacute period. Few studies have looked at the natural history risk of early recurrent stroke in the first few days after onset of symptoms in patients with a 50% to 99% ipsilateral carotid stenosis. In 2005, Fairhead et al observed that the risk of stroke was 21% at 14 days in patients with a 50% to 99% stenosis. In 2009, Ois et al reported that the stroke rate was 17% at 24 hours (after the index event) in patients with significant ipsilateral carotid disease, increasing to 22% at 48 hours and 25% at 72 hours. These data would suggest that the natural history risk of recurrent stroke <48 hours of onset of symptoms in patients with significant carotid disease may be much higher than previously thought; that is, possibly exceeding the 11% procedural risk observed in Swedvasc.

Accordingly, although the Swedvasc group is right to highlight the potential for increased risks in the hyperacute period, it would be wrong to uncritically recommend that no interventions should take place during this time period. A reanalysis of the Carotid Endarterectomy Trialists Collaboration of 6000 randomized patients suggests that even if the procedural risk were 10% (where carotid endarterectomy was performed <14 days), more strokes would be prevented in the long term than if the surgeon deferred intervening for 28 days and then operated with a 0% risk. Given the Canadian data, it is likely that were similar data available for analyzing natural history risks (versus interventional risks) within 48 hours, a similar benefit favoring hyperacute surgery might still be apparent.

To this observer, the Swedvasc data once again highlight the need for guideline-makers to recognize that interventions performed in the hyperacute period may still be beneficial even if the procedural risks are higher than guidelines currently recommend. For example, it might be reasonable to offer carotid endarterectomy within 48 hours with a threshold risk of 10% with the threshold of acceptable risk diminishing to 8% at 14 days and ≤5% thereafter.

Disclosures

None.

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