Trans-Atlantic Debate: The Role of Completion Imaging Following Carotid Artery Endarterectomy

A variety of completion imaging methods can be used during carotid endarterectomy to recognize technical errors or intrinsic abnormalities such as mural thrombus or platelet aggregation but none of these methods has achieved wide acceptance and their ability to improve the outcome of the operation remain a matter of controversy.

It is unclear if completion imaging is routinely necessary and which abnormality requires re-exploration. Proponents of routine completion imaging argue that identification of these abnormalities will allow their immediate correction and avoid a perioperative stroke. However, much of the evidence of the argument is incidental and many experienced vascular surgeons who perform CEA do not use any completion imaging technique and report equally good outcomes using a careful surgical protocol. Furthermore certain postoperative strokes including intracerebral bleeding as well as hyperperfusion syndrome are unrelated to the surgical technique and cannot be prevented by completion imaging.

This controversial subject is now open to discussion, and our debaters have been given the task to clarify the evidence to justify their preferred option for completion imaging during carotid endarterectomy.

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