Cerebral revascularization is at its heart a reconstructive strategy that aims to reconstitute brain perfusion. Endovascular techniques have recently been featured in the publication of several important trials.1−3 Open revascularization continues to be a critical tool for the management of moyamoya disease, select cases of ischemic disease, and complex aneurysms. It also promises to be featured more prominently as endovascular technology improves and ever more complex cases are selected for open treatment. This issue of Neurosurgical Focus closely examines the national trends, techniques, and outcomes relevant to open revascularization procedures. The included articles revisit the history of bypass surgery and look forward to the role of revascularization in the future. We also include careful analysis of some of the common pitfalls of revascularization procedures and how to improve outcomes.

Microsurgical technique and suturing are the foundation of bypass surgery. Educating surgeons in safe environments that recreate operative haptics has always been a challenge. This issue presents a novel model for microdissection and microvascular anastomosis. There is still disagreement among interventionalists regarding the best anesthetic management for emergency embolectomy. Included is a pilot study that seeks to improve our understanding of this controversy. Overall, the articles in this issue were chosen to remind us of our past and highlight the current discussions surrounding revascularization.

It is also important to look ahead to what our responsibilities will be in the healthcare landscape moving forward. To remain relevant, we are required to evolve how we conceptualize treatment strategies. Minimally invasive and noninvasive revascularization techniques that leverage wearable or implantable technologies are examples of such an evolution. As clinicians we need to harness the value of cerebral revascularization surgery now, and we are responsible for finding ways to make meaningful contributions to human health in the future. This issue is a timely reminder of the value of the techniques we have, and of the unrealized gain and the future of cerebral revascularization.

https://thejns.org/doi/abs/10.3171/2018.11.FOCUS18620

References

Disclosures
The authors report no conflict of interest.

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