

# Prospective Randomized Comparison of ACUSEAL (GORE-TEX) versus Hemashield-Finesse Patching during CEA: Which Is Better?

NOTES

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Several studies have reported that carotid endarterectomy (CEA) with patch angioplasty has results that are superior to primary closure. Conventional polytetrafluoroethylene (PTFE) patching has been shown to have results comparable to autogenous vein patching; however, it requires a prolonged hemostasis time. Therefore, many surgeons are using collagen-impregnated Dacron patching (Hemashield). Recently, we reported a satisfactory hemostasis time using the newly introduced hemostatic PTFE patch (the ACUSEAL patch by W. L. Gore & Associates, Inc., Flagstaff, AZ). This study is the first prospective randomized trial comparing the ACUSEAL PTFE patch versus the Hemashield Finesse patch.

## Methods

One hundred and fifty-seven CEAs were randomized into two groups, 84 with the ACUSEAL PTFE patch and 73 with the Finesse patch. Indications for surgery included 55% for TIA/stroke and 45% for asymptomatic > 70% carotid artery stenosis. All patients underwent immediate postoperative and 1-month postoperative color duplex ultrasound scanning studies. Demographic and clinical characteristics were similar in both groups, including the mean operative diameter of the internal carotid artery.

## Results

The perioperative ipsilateral stroke rate was 1.9% (2.4% for the ACUSEAL and 1.4% for the Finesse;  $p = 1.0$ ). The perioperative ipsilateral TIA rates were 0% for the ACUSEAL and 2.7% for the Finesse patch. The combined perioperative neurologic event (TIA/stroke) rates were 2.4% for ACUSEAL and 4.1% for the Finesse ( $p = .66$ ). Two perioperative carotid thromboses were noted in patients with Finesse patching versus none in patients with ACUSEAL patching ( $p = .21$ ). The combined short-term morbidity rate (TIA, stroke, and >70% restenosis or thrombosis) was 2.4% for the ACUSEAL patch versus 8.2% for the Finesse patch ( $p = .15$ ). The mean hemostasis time for the ACUSEAL and Finesse patches was 4.5 versus 3.5 minutes.

## Conclusions

The perioperative neurologic events of CEA using ACUSEAL or Finesse patching were similar. The overall short-term morbidity for both patches was also similar. Both patches have short hemostasis times.

## References

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