Fibrin sealant reduces suture line bleeding during carotid endarterectomy: a randomised trial.

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Abstract:

OBJECTIVES: To determine whether topical fibrin sealant reduced suture line bleeding during carotid endarterectomy with polytetrafluoroethylene (PTFE) patch closure.

DESIGN: Prospective randomised non-blinded control trial.

SETTING: Regional vascular surgery unit.

MATERIALS: Seventeen patients undergoing carotid endarterectomy were randomised either to receive fibrin sealant as a topical haemostatic agent at the arteriotomy suture line or to act as control.

OUTCOME MEASURES: Time taken to achieve haemostasis at the suture line. Intraoperative blood loss. Total operative time.

RESULTS: The median time to achieve haemostasis was 5.5 min (range 4-31 min) in the treatment group and 19 min (range 10-47 min) in the control group. This difference was statistically significant $p < 0.005$ by Mann-Whitney test. There was no statistical difference in total operative time. Operative blood loss was lower in the treatment group (median 420ml, range 300-500ml) than in the control group (median 550ml, range 350-1200ml) but this difference was not statistically significant.

One patient in the control group suffered a perioperative thrombo-embolic event.

CONCLUSION: Fibrin sealant is an effective topical haemostatic agent for arteriotomy suture lines involving PTFE material.