

# **Treatment of refractory donor-site seromas with percutaneous instillation of fibrin sealant.**

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## **Abstract:**

**BACKGROUND:** Seromas at the flap donor site can occur following reconstructive surgery, and chronic seromas are particularly difficult to treat. Intraoperative use of fibrin sealant has been shown to enhance adherence of tissue surfaces and reduce postoperative fluid drainage. It was hypothesized that percutaneous instillation of fibrin sealant is effective for the postoperative treatment of refractory donor-site seromas.

**METHODS:** Four patients over a 3-year period developed refractory donor-site seromas that were treated with instillation of fibrin sealant. The thrombin concentration was diluted to 5 IU/ml to increase polymerization time. The seromas were completely aspirated, and 20 ml of fibrin sealant was instilled through a dual-lumen catheter. Seroma recurrence was evaluated by serial physical examinations. Results were compared with those of control patients (n = 26) with seromas that persisted at least 6 weeks postoperatively despite conservative therapy including serial aspirations and/or drain reinsertion.

**RESULTS:** All study patients failed conservative therapy before fibrin sealant instillation, which was performed a mean of 6.1 weeks postoperatively. All four patients had immediate and complete resolution of their refractory seromas following a single fibrin sealant instillation. There were no complications or recurrences during the mean follow-up time of 73.8 weeks. The success rate for seroma resolution (100 percent) was significantly greater with fibrin sealant injection in study

patients than with serial aspiration alone (23 percent) in control patients ( $p = 0.0077$ ).

**CONCLUSIONS:** Percutaneous instillation of fibrin sealant may be an effective treatment for refractory donor-site seromas. Ongoing clinical experience and prospective controlled trials will be needed to define its role in seroma treatment.