

# Is Thrombin Injection for Femoral Pseudoaneurysms the Best Treatment? Results of a Randomized Prospective Comparison and How to Avoid the Problems

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*Bo Risberg, MD, PhD, Gothenburg, Sweden; L. Lönn, Gothenburg, Sweden; A. Olmarker, Gothenburg, Sweden; K. Geterud, Gothenburg, Sweden*

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The incidence of pseudoaneurysms following transluminal procedures is low (about 1 %) but increasing owing to widespread use of transluminal interventions. The risk of rupture is size dependent. Therapeutic options include wait and see, surgery, ultrasound-guided compression, or thrombin injection. We evaluated the efficacy of local thrombin injection in a randomized prospective comparison to ultrasound-guided compression.

Fifteen patients were randomized to ultrasound-guided compression therapy and 15 to local injection of thrombin for treatment of femoral pseudoaneurysms. Primary efficacy parameter was thrombosis within 24 hours. Secondary success was thrombosis within 48 hours after multiple procedures. Compression had an immediate success in 13% and within 48 hours in 40% of the patients. Thrombin injection was followed by 100% primary success. Thrombosis was typically achieved within 15 seconds. Six patients with failed compression thrombosed immediately on local thrombin injection.

No side effects related to either therapeutic alternative were noted.

Local thrombin injection for femoral pseudoaneurysms following catheterization is safe and effective. Care should be taken during injection to avoid a potential risk of embolization especially in pseudoaneurysms with short necks.

## References

1. Lönn L, Olmarker A, Geterud K, Risberg B. Prospective randomized study comparing ultrasound-guided thrombin injection to compression in the treatment of femoral pseudoaneurysms. *J Endovasc Ther* 2004;11:570–6.