

PERCUTANEOUS THROMBIN INJECTION FOR PSEUDOANEURYSM

Information for patients

Introduction

- A pseudoaneurysm is a collection of blood contained by clot that has formed outside blood vessel. The collection is connected by a channel to the blood vessel so blood flows within it. This may be the result of arterial puncture and/or perivascular infection. A pseudoaneurysm may rupture and bleed severely.
- Thrombin is an agent that causes clotting. It may be injected under ultrasound guidance into the pseudoaneurysm to clot the blood inside it, thereby preventing it from rupture.
- Procedure will be performed in the Department of Radiology under imaging guidance. It is performed by radiologists with special training in Interventional Radiology. The procedure time is around half to one hour.

Procedure

- The procedure is performed under local anaesthetic and aseptic technique. A skinny needle is inserted into the pseudoaneurysm sac with the needle tip inside the lumen of the pseudoaneurysm.
- About 0.1 – 0.3ml of thrombin is injected over a few seconds and the clotting of the pseudoaneurysm is monitored with ultrasound.
- Injection of thrombin may be repeated if part of pseudoaneurysm is not totally thrombosed (clotted).
- Patients were placed on bed rest with the affected limb straight for 6 hours after the injection and then allowed normal activity as tolerated.
- After the procedure, your vital signs (blood pressure and pulse rate) will be monitored.
- Strenuous activity should be avoided for at least 1 day after the procedure.
- Follow-up ultrasound may be required after procedure to document the persistent obliteration of the pseudoaneurysm.
- If the connection tract between the pseudoaneurysm and femoral artery is short or wide, a protective balloon catheter may be introduced from the other femoral artery for temporary occlusion at the diseased femoral artery during thrombin injection.

Potential complications

- Embolization to distal arteries (2%) – may require emergency angiogram, suction of thrombin mass and clot lysis procedure.
- Pseudoaneurysm rupture after thrombosis (1%).
- Leg ischemia (1%).
- Bleeding reaction to thrombin.
- If thrombin of animal origin is used, it may induce antibodies and allergic reactions in patients who require repeated treatment.

- Abscess formation at site of pseudoaneurysm.
- Skin infection over puncture site.
- Rupture of pseudoaneurysm.
- If a protective balloon catheter is used, the other femoral artery may be injured.

Disclaimer

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