

Superficial Femoral Artery Transection from Penetrating Trauma of the Right Thigh

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2. Key words

Transection, Trauma, Superficial femoral artery, Anastomosis

1. Clinical Image

A 24-year-old male presented to the emergency room at the University Hospital of Patras after sustaining a penetrating stab wound to the right thigh from a thin knife reportedly 4-cm in length. The patient was hypotensive with a blood pressure of 73/47 mmHg and tachycardic with a pulse of 130 beats per minute in the emergency department. He had a large posterior thigh wound with active bleeding. Blood analysis revealed hemoglobin of 9.1 g/dL, 9070 leukocytes and 145000 platelets. A tourniquet was placed at the thigh and he was rapidly taken to the operating room for exploration of the right thigh wound. A horizontal groin incision was performed with dissection carried down to the right femoral artery and vein. Patient was found to have complete Superficial Femoral Artery (SFA) transection with each end retracted (Figure 1). The injury was surgically managed by using a 10cm part of saphenous vein taken from the contralateral side and making two anastomoses with each end retracted (Figure 2). The patient was discharged home after four days in a very good condition.



Figure 1: A 24 years old male with complete Superficial Femoral Artery (SFA) transection with each end retracted.



Figure 2: Anastomoses with an autologous saphenous vein from the contralateral side.

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Femoral vessel injuries account for approximately 70% of all extremity vascular injuries [1]. Management of SFA transection can be achieved with primary repair including end-to-end anastomosis, interposition saphenous vein as well as Polytetrafluoroethylene (PTFE) graft, vein patch or femoro-femoral bypass with reversed saphenous vein or PTFE conduit. A synthetic graft is preferred, when an autologous saphenous vein from the contralateral side is less than 6 mm [2, 3].

The findings of this case highlight the need for a high index of suspicion and persistent clinical investigation to identify vascular injuries in the absence of hard signs of vascular trauma, as a penetrating injury to femoral artery can have significant morbidity and mortality.

References

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