



RIGHT FEMORAL ARTERY ITRAGENIC PSEUDOANEURYSM SURGICAL EXCISION

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ABSTRACT

Like other invasive procedures, percutaneous coronary interventions are associated with complications. Most common access site for these procedures is common femoral artery. Complications such as groin and retroperitoneal hematoma can be encountered as well as pseudoaneurysms, arteriovenous fistulas, acute arterial occlusion, and infection. When infected pseudoaneurysm occurs, surgical treatment can be extremely difficult. We present a case of the patient in whom pseudoaneurysm of right common femoral artery developed after percutaneous coronary intervention and was successfully treated by surgical excision and direct closure of opening in femoral artery.

KEYWORDS: Pseudoaneurysm, Percutaneous coronary intervention, Femoral artery, Pulsatile mass.

INTRODUCTION

According to the literature data, complication rates related to access artery puncture are different, mostly because of lack of standardized criteria for establishing the diagnosis [1]. Most common site for access is common femoral artery, followed by radial and at the end brachial artery which is rarely used. Incidence of complications associated with femoral artery puncture is estimated around 2–6% [2]. We present a case of the patient in whom pseudoaneurysm of right common femoral artery developed after percutaneous coronary intervention and was successfully treated by surgical excision and direct closure of opening in femoral artery.

CASE REPORT

A 54-year-old male patient was admitted at our Institute due to evaluation of stable angina pectoris. His past medical history included arterial hypertension. After performing clinical examination, echocardiography, and coronary angiography, indication for angioplasty of right coronary artery was established. Percutaneous coronary intervention (PCI) was successfully performed, and single coronary stent was deployed during the procedure. Arterial access was obtained through right common femoral artery, and at the end of intervention, pressure compression was given. The next day patient was discharged from the Institution in good condition. Three weeks after the discharge, the patient was readmitted due to gradually increasing pulsatile swelling in right groin region. Clinical examination revealed presence of pulsating mass in the right groin of 15 by 15 cm in diameter.

Ultrasonography and CT angiography verified presence of pseudoaneurysm of right common femoral artery (15 cm in diameter) [Figure 1].

After short preoperative preparation, the patient underwent surgical intervention under general anaesthesia. Oblique incision above inguinal ligament was used to access, extraperitoneally, external iliac artery. Artery was dissected about 5 cm in length. Longitudinal incision in the right groin is then performed to access femoral arteries. Common femoral, profundafemoris, and superficial femoral artery were dissected and looped. Intravenous heparin (5000 IU) was administered. External iliac artery, profundafemoris artery and superficial femoral artery clamped. Dessection and separation of pseudoaneurysm followed by excision was done with cautery along with its content the clotted blood [Figure 2]. The opening of pseudoaneurysm in common femoral artery was closed directly with prolene 6-0 in double layer. Negative suctionromovac drain no 14 placed.

The wound was reconstructed in layers, skin closed with ethilone 2-0 and drain removed after 48 hours. On the seventh postoperative day the patient was discharged.

DISCUSSION

Like other invasive procedures, percutaneous coronary interventions are associated with complications. Most common access site for these procedures is common femoral artery. Complications such as groin and retroperitoneal hematoma can be encountered as well as pseudoaneurysms, arteriovenous fistulas, acute arterial occlusion, and infection. When infected pseudoaneurysm occurs, surgical treatment can be extremely difficult.

Although recently published, meta-analyses showed no superiority of vascular closure devices over manual compression [3, 4], their use has dramatically risen in the last years in order to reduce incidence of access site complications, patient discomfort, and time of immobilization [5]. With femoral artery puncture, pseudoaneurysms can develop in up to 7.5% of cases and can cause distal embolization, external compression on neurovascular structures, rupture, or hemorrhage. If the hematoma is larger, ultrasonography can reveal presence of pseudoaneurysm.

If the common femoral artery is normal with clearly visible single opening feeding pseudoaneurysm then pseudoaneurysm can be excised without sacrificing the part of common femoral artery by just direct closure of opening in common femoral artery with prolene. Sometimes rarely excision of part of common femoral artery with interposition grafting may be required.

CONCLUSION

By proper anatomical dissection pseudoaneurysm can be excised without damaging the common femoral artery and surrounding vital structure. The pseudoaneurysm excision was simple and safe even in inexperienced hands by proper anatomical knowledge. Timely management was important to prevent complications like infection and rupture. If the common femoral artery is normal with clearly visible single opening feeding pseudoaneurysm then pseudoaneurysm can be excised without sacrificing the part of common femoral artery by just direct closure of opening in common femoral artery with prolene. Sometimes rarely excision of part of common femoral artery with interposition grafting may be required.



FIGURE 1 : CECT ANGIOGRAPHY SHOWING PSEUDOANEURYSM WITH ITS OPENING IN RIGHT COMMON FEMORAL ARTERY

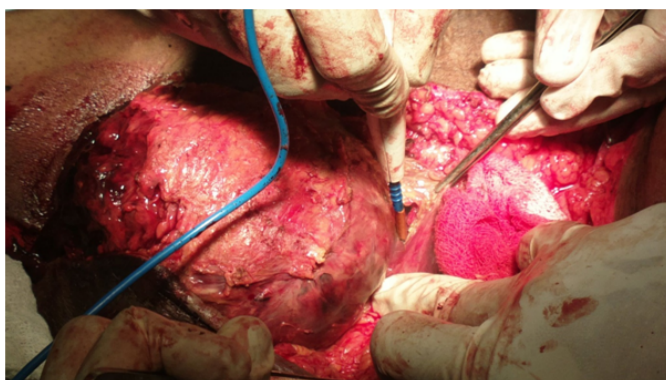


FIGURE 2 - DESSECTION AND SEPARATION OF PSEUDOANEURYSM WITH CAUTERY

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