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Case Report

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Huge thrombosed popliteal artery aneurysm

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ABSTRACT
Popliteal artery aneursyms (PAA) are the most common true peripheral aneurysm. We report a case of 66-year-old patient who has pulsatile mass posterior of the right knee diagnosed with massive PAA.
Keywords: Popliteal artery, Aneurysm, Pulsatile masstime

1. INTRODUCTION

The popliteal artery aneurysms (PAA) are defined as a 50% increase in diameter compared with the normal arterial diameter. PAAs are rare but complicative [1]. Although, mostly asymptomatic, thrombosis, acute and chronic limb ischemia, major amputation may occur [2,3]. Open and endovascular surgery can be performed for treatment. There are various studies that compare the treatment methods but there is no clear consensus regarding management [4-6].

2. CASE REPORT

A 66-year-old male patient was referred to our clinic with the diagnosis of PAA. He had hypertension and coronary vasculary disease (Percutanous coronary intervention-Circumflex artery) for seven years in his medical history. On admission to our center he had a pulsatile mass posterior of the right knee for two months. Computed tomography (CT) angiography revealed a huge aneurysm (67x55 mm) originating from the popliteal artery (Figure 1). Since, PAA is often associated with other large vessel aneurysms, preoperative evaluation is important. We used Doppler ultrasonography to examine abdominal aorta and bilateral carotid arteries. No patology was detected. He underwent open surgery because of intraluminal thrombus suspicion rather than endovascular treatment. During surgery, we detected a massive aneurysm sac filled with thrombus (Figure 2). We explored the aneurysm sac completely, both proximal and distal size was normal. Following systemic heparinization we applied cross-clamp to the proximal and the distal popliteal artery. We replaced the artery with saphenous vein interposition. Distal pulses were palpable at the end of surgery. The pathology result of the aneurysm material were arterial aneurysm formation, intraluminal thrombus and intimal lenfosit aggregates. After a-two-year follow-up the patient was symptom free.

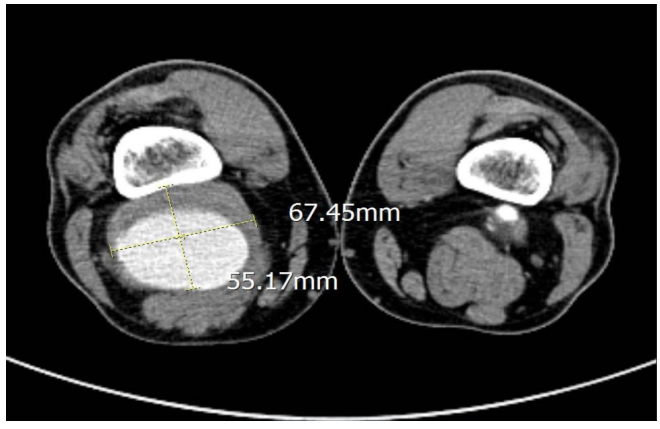

Figure 1. *CT image of the mass*

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Figure 2. *A massive aneurysm sac filled with thrombus*

3. DISCUSSION

Popliteal artery aneurysm is a rare disease, with the incidence ranging from 0.% to 2.8% but also the most common type of peripheral artery aneurysms. Most cases present bilaterally [7-9]. Most of the patients are asymptomatic. Symptoms can be variable from asymptomatic pulsatile mass to acute limb ischemia due to acute thrombosis or distal embolization. Our patient presented with a pulsatile mass in the right knee. As the aneurysm expends, symptoms and complications increase as well. PAAs with >2 cm are higher rates of tromboembolic events. In our patient there was no thromboembolic symptom despite his PAA being 6 cm. Even though, it is asymptomatic, complications may occur in patients with untreated asymptomatic PAA. The results of asymptomatic patients who underwent surgery were good [5,10]. Therefore, elective surgery is recommended by most of the authors. PAA can be treated with open surgery, endovascular methods or hybrid methods with open surgery. In our patient we preferred open surgery because of intraluminal thrombus suspicion rather than endovascular treatment. Zamboni et al., reported improved results with hybrid method in patients who were presented with thromboembolic symptoms [11]. However, the analysis of POPART registery shows endovascular repair group long-term patency rates are lower when compared with open surgery rates [9]. In the era of percutanous interventions, open surgery is still higly recommended [5,6,9].

Compliance with Ethical Standards

This work was conducted ethically by following per under Helsinki World Medical Association Declaration.

Patient Consent: The patient gave his consent for images and other clinical information relating to his case to be reported in a medical publication.

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