

## Visual Diagnosis in Emergency Medicine

### BLUNT THIGH TRAUMA AND A PULSATILE MASS: AN UNUSUAL CASE OF PSEUDOANEURYSM OF THE MEDIAL GENICULATE ARTERY

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#### INTRODUCTION

Pseudoaneurysm occurs almost exclusively as a complication of penetrating vascular injury, typically by iatrogenic intervention or penetrating trauma. Isolated pseudoaneurysms in the geniculate arterial system are extremely rare but have occurred in the postsurgical setting (1–3). There exists a lack of literature detailing pseudoaneurysm of the geniculate arteries from a blunt traumatic etiology.

#### CASE REPORT

An 80-year-old man presented to the emergency department complaining of left knee pain. Five days earlier, the patient was changing a tire when his truck fell off the hydraulic jack and grazed his left knee. The physical examination revealed a swollen, pulsatile mass over the left inferomedial thigh (Figure 1).

Ultrasound of the area showed a heterogeneous soft tissue mass with high velocity to-and-fro vascular flow consistent with a partially thrombosed geniculate artery pseudoaneurysm (Figure 2). The patient was admitted to the vascular surgery service for observation and was managed conservatively with repeat

ultrasound demonstrating complete thrombosis of the pseudoaneurysm.

#### DISCUSSION

This patient experienced blunt trauma from a heavy object that resulted in injury to the geniculate arterial



Figure 1. Physical examination showing a swollen, pulsatile mass over the left inferomedial thigh (red arrow).

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**Figure 2.** Soft tissue ultrasound of the mass on the left infero-medial thigh reveals a heterogeneous soft tissue mass with high velocity to-and-fro vascular flow consistent with a partially thrombosed geniculate artery pseudoaneurysm. The red arrow shows vascular flow within pseudoaneurysm.

vasculature and formation of pseudoaneurysm. Although identical cases have not been reported in the literature, geniculate arterial pseudoaneurysms have been reported

in the orthopedic literature after surgical interventions (1–4).

As described by Joswig and Ng in a case of temporal artery pseudoaneurysm, the mechanism of pseudoaneurysm formation in blunt trauma is blunt translational forces (5). Pseudoaneurysms are a heterogeneous group of vascular injuries, and this case report highlights the variability of this injury even in the setting of blunt trauma.

## REFERENCES

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