

# GENICULAR ARTERIES PSEUDOANEURYSM POST TOTAL KNEE ARTHROPLASTY: A CASE REPORT

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## INTRODUCTION:

Arterial injury is uncommon and pseudoaneurysm is a rare complication of total knee arthroplasty (TKA). We report a case of genicular artery pseudoaneurysm post TKA that was treated with endovascular stenting.

## CASE:

A 65 years old female with underlying hypertension, diabetes and ischaemic heart disease had undergone bilateral TKA in February. She presented to us in July with right knee swelling for 3 months duration. She claimed there was pulsatile sensation over the swelling. On examination, there was an 8cmx8cm pulsatile swelling over inferomedial aspect of right knee with no skin changes. Her knee range of movement was full. Hence a preliminary diagnosis of PA pseudoaneurysm was made. An ultrasound and CT-angiography were performed to confirm the diagnosis

**Figure 1: 3D CT angiography demonstrating aneurysm likely inferior medial genicular artery.**

**Figure2: Lateral radiograph post endovascular stenting**

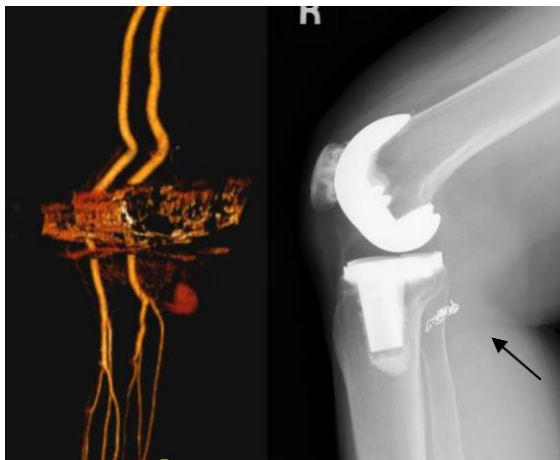


Figure 1

Figure 2

## DISCUSSIONS:

The incidence of arterial complications following TKA is around 0.03 to 0.12%. There are few reports on the formation of pseudoaneurysms following TKA. A pseudoaneurysm is a pulsating haematoma that communicates with an artery through a disruption of the arterial wall. These may occur in the popliteal artery and genicular arteries. Pseudoaneurysms may be caused by unrecognised injuries, either from direct intra-operative manipulations or indirectly by intimal plaque disruption of calcified atherosclerotic vessels. The popliteal artery is at risk during resection of posterior femoral condyles or the proximal tibia, or during release of the posterior capsule. The superolateral geniculate artery, is at risk during lateral retinacular release, whereas the inferomedial geniculate artery is at risk during release of medial structures along the proximal tibia.

## CONCLUSION:

An early diagnosis of pseudoaneurysm is essential to avoid fatal ischaemic changes of the lower extremities. Soft tissue handling during performing TKA must be gentle and meticulous to reduce tractional vascular injury. It may be good practice to release tourniquet prior to closure to check for any injured genicular arteries.

## REFERENCES:

1. Journal of Orthopaedic Surgery 2007;15(3):386-9
2. The Journal of Arthroplasty Vol. 14 No. 5 1999