

Recurrent episodes of total knee prosthesis dislocation with associated neurovascular impairment: clinical case

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Introduction

Total knee arthroplasty is considered a safe procedure with a low incidence of complications being reported. Dislocation of a knee prosthesis is a rare event and occurs as a result of trauma or instability. It should be promptly reduced and the patient carefully evaluated to exclude neurovascular complications. The reported incidence of vascular damage ranges from 30% to 60%.

We present the case of an 88-year-old woman with bilateral knee prosthesis who suffered traumatic dislocations in both knees, with associated neurovascular complications, several years after surgery.

Clinical case

➤ 2007: Total right knee arthroplasty

➤ 2008: Total left knee arthroplasty



Fig.1 : X-ray of- the patient in 2010



Fig.2 : Anterior dislocation of the left knee

2015: Presented to the emergency room (ER) after trauma of the left knee. At examination, deformity, functional impotence and acute limb ischemia.

Anterior dislocation of the prosthetic knee that was promptly reduced

Total occlusion of the popliteal artery – revascularization surgery.

Good recovery on follow-up, without neurovascular deficits



Fig.3: Anterior dislocation of the right knee



Fig.4: Anterior dislocation of the right knee

2020: Presented to the ER after a fall. Right knee presented with gross deformity and lesion in the territory of common peroneal nerve was identified (hypoesthesia and palsy of the distal limb).

Anterior dislocation of total knee prosthesis - The dislocation was immediately reduced.

Neuropraxia of CPE - Full recovery of sensitivity and function, except for dorsiflexion that was classified as G4.



Fig.6: X-ray of the patient in 2022



Fig.5: Anterior dislocation of the right knee

2021: Presented to the ER after another fall with right knee pain and deformity. Arterial ischemia of the limb was promptly identified.

Anterior dislocation of total knee prosthesis – Reduced in the ER.

Occlusion of the popliteal artery – bypass with ipsilateral great saphenous vein. Compartment syndrome due to revascularization – four compartment fasciotomy.

The patient stayed in hospital for 2 months (30 days in a intensive care unit) and was discharged for a institution with health assistance. The patient lost the ability to walk even with external support.

Conclusion:

The reported prevalence of knee dislocation following total knee arthroplasty is 1-2%. As it is an infrequent event, no clear guidelines for its management are available. Despite the rarity of neurovascular complications associated with episodes of knee replacement surgery, they should be promptly identified and treated, requiring multidisciplinary involvement to obtain the best results for patients.

Referências

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