Bilateral Knee Dislocation Following Bilateral Knee Replacement

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Key Learning Points

- Knee dislocation following total knee arthroplasty (TKA) is a rare but serious complication that potentially necessitates amputation.
- This complication may present similarly to typical postoperative pain, which can lead to delayed diagnosis and worse outcomes.

Background

- Knee dislocation during recovery of TKA requires operative revision.
- Amputation may be needed in the most severe cases.
- Surgery-related risk factors: choice of implant, tibial implant malpositioning, and faulty ligament balance in flexion and extension.[1]

Case Description

- 77F with bilateral knee osteoarthritis, obesity and chronic corticosteroid use for adrenal insufficiency presented to acute rehab after bilateral TKA.
- Developed left knee pain with extension, buckling and weight-bearing difficulty.
- Imaging consistent with left knee dislocation (Figure 1).
- Underwent left TKA revision.
- Later developed right knee pain with spasms, decreased active range of motion and right calf ecchymosis.
- Clinical evaluation and imaging consistent with recurrent left and new-onset right knee dislocation (Figure 2).
- Underwent bilateral TKA revision with hardware replacement.
- Resumed acute rehab without immediate complications.

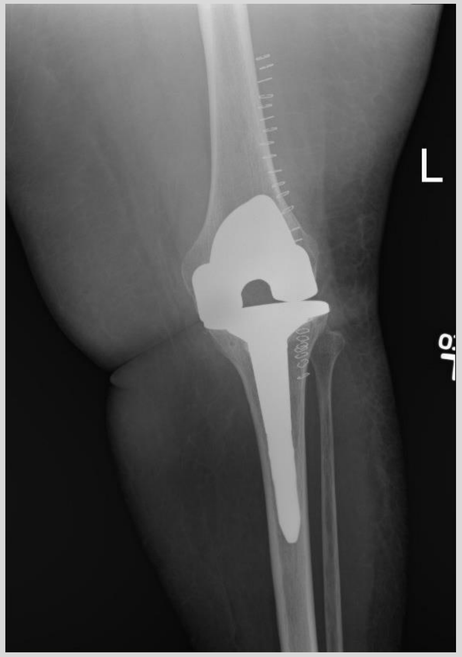

Figure 1. Anteroposterior (AP) left knee radiograph depicting posterior subluxation of the tibia under the femur.

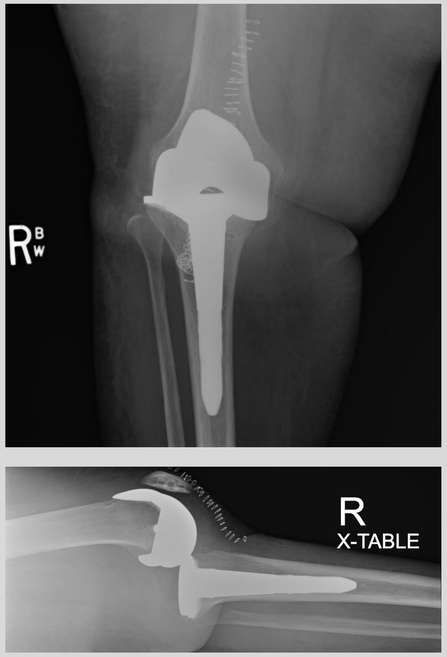

Figure 2. AP (top) and lateral (bottom) right knee radiographs demonstrating anterior displacement of the femur over the tibia with moderate effusion.

Discussion

- Common comorbidities for this complication: obesity, varus-valgus deformity >10°, and flexion contracture >20°.[1]
- Our patient's obesity may have contributed to her presentation.
- Chronic corticosteroid use (seen in our patient) is associated with poor wound healing.

Conclusion

- Providers should recognize potential signs and risk factors for knee dislocation following TKA.

References

1. Rouquete L, Erivan R, Pereira B, Boisgard S, Descamps S, Villatte G. Tibiofemoral dislocation after primary total knee arthroplasty: a systematic review. 2019;43:1599-1609.

Link to Abstract

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