

Transfibular Approach To The Tibial Plateau: The Hospital Sungai Buloh Experience

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INTRODUCTION

Complex tibial plateau fracture management remains challenging in diagnosing and its subsequent surgical approach. Typically, the treatment for tibial plateau fractures is based on two-dimensional classification systems; either the Schatzker or AO / Orthopaedic Trauma Association classifications. However, they are not applicable for all configurations of tibial plateau fractures since they are based on 2-dimensional radiographic assessment. Posterolateral fracture of tibial plateau is relatively uncommon, accounting 7-10% of all tibial plateau fractures. CT-based 3-dimensional consideration of the fracture pattern is important in the surgical approach (3-column concept). Stabilization of these types of fractures cannot be effectively achieved using a lateral buttress plate. These posterolateral column fractures are best addressed with the posterolateral transfibular approach. This technique allows simple access and clear exposure of the posterolateral tibial plateau, aiding in the reduction of the depressed and comminuted fragment. This approach allows proper posterolateral buttressing of the tibial plateau. This article is to share our early experience and present our preliminary results.

MATERIALS & METHOD

2 patients with posterolateral tibial plateau fractures underwent posterolateral transfibular approach.

Case 1: 30 year old male, fall from height.



Case 2: 50 year old Male, MVA.



DISCUSSION

Majority of the current classifications for tibial plateau fractures use 2-dimensional images, influencing the surgeons to pay attention to medial and lateral fixations without addressing posterior column. CT scan would help identify certain fracture patterns that involves the posterior column; which requires a different surgical approach. Direct exposure through the traditional lateral or anterolateral approaches will be able to address the posterolateral column. We utilized the posterolateral transfibular approach by Lobenhoffer et al, ensuring a safe and adequate posterior placement of lateral plate. 2 complications may be specifically linked to the described approach: iatrogenic injury of the CPN and nonunion of the fibular osteotomy; of which so far is not seen both of our patients. At follow-up of 2 months, both patients have satisfactory knee motion, with fractures uniting well.

CONCLUSION

We advocate a routine CT-scan for all tibial plateau cases that are suspicious to have posterior column involvement, utilizing the 3-column concept.

Posterolateral plateau fractures can be safely and adequately addressed by the transfibular approach.

REFERENCES

1. Solomon LB, Stevenson AW, Baird RP, Pohl AP. Posterolateral transfibular approach to tibial plateau fractures: Technique, results, and rationale. *J Orthop Trauma*. 2010;24:505–514.