Bilateral External Tibial Torsion Correction: Utilizing the Perfect Lateral View Operative Technique

Ariel Nicolas Rodriguez, Ameer Tabbaa, Jake Schwartz, Keith Diamond, Ahmed Thabet Hagag[1], Amr Atef Abdelgawad
[1]Texas Tech University HSC

Objective: This video demonstrates a straightforward and effective technique for correcting bilateral external tibial torsion, emphasizing intraoperative objective assessment and eliminating the need for preoperative CT scans.

Methods: A 22-year-old female presented with bilateral external tibial torsion. After extensive discussions with the patient and her family regarding the diagnosis and treatment options, the decision was made to proceed with bilateral tibial osteotomy utilizing the perfect lateral technique. The technique involves the use of Schanz pins and C-arm guidance to achieve precise alignment and internal fixation without the need for preoperative CT imaging.

Procedure: The patient underwent sequential correction of the right and left tibia. Schanz pins were applied at the knee and ankle, and the tibial canal was reamed to accommodate a Stryker intramedullary nail. The angle between the pins was measured intraoperatively to ensure accurate rotational correction. Compression and alignment were achieved using internal fixation devices, and the procedures were confirmed with C-arm imaging throughout.

Results: Postoperative imaging at one, two, and six months demonstrated successful correction of the tibial torsion with excellent alignment and stability. The intraoperative technique allowed for real-time assessment and adjustment, ensuring optimal outcomes without the need for preoperative CT scans.

Conclusion: This video presents a simple and effective technique for bilateral tibial osteotomy that allows for intraoperative objective assessment of correction. The method eliminates the need for preoperative CT, thereby reducing radiation exposure and streamlining the preoperative process.