Evaluation of the Anterior Ankle Syndesmosis Using the Posterolateral Approach Results in Fewer Wound Complications Compared to the Anterolateral Approach in the Treatment of Lateral Malleolar Fractures ***Guy Putzeys, MD, FIOTA****; Xaviera Berende, Jr., Ortho resident*

Purpose: Evaluation of the anterior syndesmosis complex in the treatment of ankle fractures involving the lateral malleolus has gained importance, but it is unclear which is the best approach for visualization. We compared a fork-shaped anterolateral (AL) approach with a hockey-stick–shaped posterolateral (PL) approach (see Figure). We hypothesized that the AL approach would result in more postoperative wound complications than the PL approach.

Methods: A retrospective study was conducted with prospectively collected data in a single center with a single surgeon. The minimum follow up was 6 months. Exclusion criteria were age younger than 14 years, a PL approach for addressing a posterior malleolus fracture, open ankle fracture, concomitant ipsilateral distal tibia fracture, and early loss of follow up.

Results: In total, 62 consecutive patients were recruited between 2014 and 2024; 37 patients had an AL approach (group A) and 25 patients had the PL approach (group B). Both groups were statistically comparable. In group A, 11 patients had a wound problem that was statistically significant (Mann Whitney U test, p = 0.02) compared to only one patient in group B. No risk factor could be identified for wound healing problems.

Conclusion: The PL ankle approach for visualization of the anterior syndesmosis had significantly fewer wound complications than the AL approach when treating lateral malleolus fractures.