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Preliminary results of the correction of metatarsus adductus associated with severe hallux valgus

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ABSTRACT

Objective: To evaluate the preliminary results of angular corrections from a series of cases of surgical treatment of severe hallux valgus associated with metatarsal adduction.

Methods: Data were retrospectively collected from the medical records and pre- and postoperative radiographs of patients undergoing Lapidus arthrodesis combined with lateral rotation osteotomy at the bases of the second and third metatarsals. The following angle measurements were performed before and after surgery: hallux valgus angle, intermetatarsal angle, and the degree of adduction of metatarsal bones (measured using Sgarlato’s and Engel’s angles). The mean follow-up period was 18 months (16-24 months).

Results: The mean hallux valgus correction angle was 31° (19-53°), and the mean intermetatarsal correction angle was 5.771° (2-9°). Regarding forefoot adduction, the mean correction angle measured was 15.57° (12-21°) when the Sgarlato technique was used and 15.71° (10-22°) when the Engel technique was used. All measured angles decreased significantly in the postoperative evaluation.

Conclusion: Rotational osteotomy at the bases of the second and third metatarsals was effective for correcting metatarsal adduction, allowing the alignment of the first metatarsal and therefore the correction of the deformity.

Keywords: Metatarsus varus; Hallux valgus; Osteotomy; Intermetatarsal angle.