Abstract:

BACKGROUND: The intention of this study was to analyze the long-term results of the proximal closing wedge osteotomy for the correction of hallux valgus deformity, modified by adding a mini L-plate for osteosynthesis. METHODS: The outcome of a proximal first metatarsal closing wedge osteotomy was retrospectively evaluated after a mean follow-up of 52 months. A total of 66 female patients (86 feet) participated in this study. The AOFAS-score was used to evaluate the postoperative results. Pre- and postoperative weight-bearing radiographs were used to evaluate the osseous development. RESULTS: 95.5% of the patients were satisfied, 3 patients (4.5%) were not satisfied with the overall result of the operation. Transfer metatarsalgia was registered in 7 of 50 cases. The mean improvement of the HV-angle was 22.1 degrees (36.4 degrees to 14.3 degrees) and the intermetatarsal angle was reduced from a mean of 17.6 degrees to a mean of 6.5 degrees. The mean first metatarsal shortening was 3.2mm. The mean AOFAS-score was 78 points. CONCLUSION: The results confirm, that the closing wedge osteotomy is indicated for moderate to severe hallux valgus. The shortening of the first ray is comparable with other well-established operative procedures. The risk of transfer metatarsalgia can only be lightly reduced by this procedure.