

Distal Chevron osteotomies enhance patient-reported outcomes for all severity grades of hallux valgus

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Background Hallux valgus (HV) causes pain and functional limitations. Although a common diagnosis, there is limited data on surgical outcomes based on varying HV severities. This study aims to assess the patient-reported outcomes after a Chevron osteotomy (CO) for various HV severities, the number of additional procedures, and the utility of internal fixation for the osteotomy.

Material and Methods We included 2259 HV cases from the Swedish register for foot and ankle surgery (Swefoot) , who underwent primary surgery with a CO between 2014-2021. HV deformities were classified in 3 severity grades and we extracted additional surgical procedures, patient-reported results, including the PROMs SEFAS and EQ-5D-3L both pre and 1-year post-surgery.

Results The mean SEFAS score after 1 year was 40 (SD 7.7) for the mild HV group (n=413), 40 (SD 8.5) for the moderate (n=1530) and 39 (SD 8.6) for the severe group (n=316) with clinically and statistically significant improvements in all groups after surgery. EQ-5D-3L improved in all 3 groups. The distribution of soft tissues procedure and Akin osteotomies varied across the different severity groups: 4% and 10% for the mild, 11% and 25% for the moderate, and 17% and 61% for the severe group, respectively. The internally fixated CO had better patient-reported outcomes.

Conclusion Regardless of the severity of HV, the CO is a surgical method that improves PROMs. As the severity grade of HV increases, there's a more frequent recourse to additional procedures such as Akin osteotomies and soft tissue procedures.