

Register-based Study of 1-year Postoperative Results After Surgical Treatment of Adult Acquired Flatfoot Deformity

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Adult acquired flatfoot deformity (AAFD) is a disabling and painful deformity of the foot. Previous research has shown that many clinics use hindfoot arthrodesis (HFA) rather than osteotomy to treat flexible AAFD even though it is not recommended.

We aimed to explore the 1-year postoperative results after surgical treatment for AAFD and compare the patient reported outcomes for feet treated with osteotomy to feet treated with HFA, using data from the Swedish National Quality Register for Foot and Ankle surgery (Swefoot).

667 feet were treated between February 2017, and May 2022, and 218 had a complete pre- and postoperative SEFAS score.

The mean preoperative SEFAS score was 18.5 (SD 6.7). The mean postoperative SEFAS score was 29.7 (SD 9.7). The mean change in SEFAS score was 11.2 (CI 95% 10.0-12.4).

There were 199 flexible flatfeet (Grade I-II) with pre- and postoperative SEFAS scores that had undergone surgical treatment with either osteotomy (n=150) or HFA (n=49).

The effect of osteotomy compared to HFA on postoperative SEFAS score was positive (B=1.90, CI 95% -1.07 to 4.87) but not statistically significant.

Patients treated surgically for AAFD had a statistically significant and clinically relevant improvement in SEFAS score from preoperative to 1-year postoperative. Our results indicate a better outcome after osteotomy compared to HFA, however these differences were not statistically significant which could be the result of a small sample size. Larger studies exploring the outcome of HFA compared to osteotomy are needed to know if one method should be considered superior.