Result of midfoot flusion with locking plate and other device

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Purpose: The purpose of this study was to compare and analyze the results of midfoot arthrodesis with locking plate fixation and other instrument.

Materials and Methods: The 22 cases in 21 patients who underwent midfoot arthrodesis at our institution were reviewed retrospectively from January 2006 to December 2011. All operation was performed by corresponding author, locking plate was used in 9 cases, and the other instrument such as K-wire, metal screw, staple was used in 13 cases. Radiologic union time was evaluated and compared between group of locking plate and the others. Preoperative & postoperative AOFAS midfoot scale was evaluated and compared as a clinical results. In particular, postoperative AOFAS score was checked with telephone survey to reflect recent results. The two groups were statistically compared using Mann Whitney U-test.

Results: AOFAS midfoot score were rising preoperative and postoperative from 69.7 to 89.4 in locking plate group and from 67.6 to 67.6 in the other instrument group. There was no statistically significant difference ($p=0.179$) in two groups. All cases were united, and mean radiologic union time was 10.2(8-12) weeks in locking plate group, 12.6(8-20) weeks in the other instrument group with no significant difference ($p=0.062$). One case of peroneal nerve irritation was detected as a complication in locking plate group. One case of peroneal nerve irritation and 1 case of superficial wound infection with skin sloughing were detected in the other instrument group.

Conclusion: Midfoot fusion with locking plate tend to need more shorter time for radiologic union, and to be higher in clinical exam score, even if there was no statistically significant.

Biography

Kyung-Ah has completed his M.D at the age of 27 years from Seoul National University School of Medicine. He was associate faculty in the department of orthopedic surgery of University of Iowa Hospital and Clinics. He is the director and professor of department of orthopedic surgery in Inje University Ilsanpaik hospital. He is a member of korean orthopedic association, korean society of foot surgery, and american orthopedic foot and ankle society, etc. He has published more than 100 papers in reputed journals and serving as an editorial board member of repute.

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