Session 3: 9:26 am

Long Term Results after Modified Brostrom-Split Evans Procedure to Restore Lateral Ankle Stability

Presenting Author:
G. Troy Ardoin, MD
Little Rock, Arkansas

Abstract Co-Authors:
1. Robert Anderson, MD
Charlotte, North Carolina
1 (Arthrex, Inc; DJ Orthopaedics; Wright Medical Technology, Inc.); 3B (Wright Medical Technology, Inc.); 5 (Wright Medical Technology, Inc.); 7 (Wolters Kluwer Health- Lippincott Williams & Wilkins); 8 (Wolters Kluwer Health - Lippincott Williams & Wilkins); 9 (American Orthopaedic Foot & Ankle Society)

2. W. Hodges Davis, MD
Charlotte, North Carolina
1 (Arthrex, Inc; DJ Orthopaedics; Wright Medical Technology, Inc.); 2 (DJ Orthopaedics; Smith & Nephew; Wright Medical Technology, Inc.); 3B (Smith & Nephew; Wright Medical Technology, Inc.) 4 (Wright Medical Technology, Inc.); 5 (DJ Orthopaedics; Wright Medical Technology, Inc.); 6 (DJ Orthopaedics; Wright Medical Technology, Inc.); 7 (Wolters Kluwer Health - Lippincott Williams & Wilkins); 8 (Foot and Ankle International; Techniques in foot and Ankle); 9 (American Orthopaedic Foot & Ankle Society);

Summary:
The modified Brostrom-split Evans procedure has been used for augmented lateral ankle ligament reconstruction for the treatment of chronic lateral ankle instability with excellent short term functional outcomes. This study evaluated the long term functional outcomes of patients with recurrent lateral ankle instability treated with the modified Brostrom-split Evans procedure.

Methods:
Twenty three patients were retrospectively reviewed after the modified Brostrom-split Evans procedure. Physical exam was preformed and ankle radiographs were obtained at the time of final follow. Strength, utilizing a dynamometer, and range of motion (ROM) were compared to the contralateral non-operative side. Patients were evaluated with SF-36 scores, Visual Analog Scale (VAS) pain scores and the Foot Function Index (FFI). Patient satisfaction and willingness to undergo the procedure again were noted.

Results:
Average age at time of surgery was 34.7 years. Mean follow-up was 8.7 years (5 to 15 years). The average follow-up SF-36 and VAS activities scores were 83 and 21 respectively. The average follow-up FFI was 0.1. Ankle eversion strength was not statistically different (p>.05). Ankle ROM was equal in all planes except inversion. The average inversion ROM loss was 51 percent. Only one patient was noted to have radiographic signs of subtalar arthrosis, but was asymptomatic. No patient required revision surgery.
Conclusions:
The modified Brostrom-split Evans procedure for lateral ankle ligament reconstruction shows excellent functional outcomes at long term follow-up with no loss of peroneal strength or progressive subtalar arthritis.