

the care of the senior author. Any patient with evidence of pre-existing degenerative arthrosis was excluded. Patients were followed for a minimum 1-year time period postoperatively. All patients had pre- and postoperative AOFAS hindfoot and SF-36V2 scores.

Results: The mean patient age was 30.4 years (range, 13-60 years) and the mean follow-up time was 25.1 months (range, 6-81 months). 91% of patients reported good to excellent functional outcomes and would recommend the procedure. Mean AOFAS score improved significantly from 59 points preoperatively to 92 points at follow-up. The SF-36V2 score also improved significantly by a mean 32 points at follow-up. Return to play in the athletic population was a mean of 7 weeks. Five patients experienced complication (5%).

Conclusion: The typical presentation of AMI is medial ankle joint pain while running, kicking, or stair climbing and is explained by the entrapment of soft tissue inflammation between the osteophytes during dorsiflexion of the ankle. In the current authors' experience, the diagnosis of AMI is often delayed, caused prolonged time lost to injury in athletes. Proper diagnosis should include physical examination in addition to oblique AMI-view radiographs and MRI. When medial ankle joint pain is present, the diagnosis of AMI should be considered until proven otherwise. The poor results of conservative treatment therapies for impingement syndromes of the ankle have led the current authors to advocate arthroscopic debridement as a first line treatment to expedite return to competitive sport. AMI is a common condition seen in athletes and when treated arthroscopically can be expected to do well and return to sport at previous levels.

Prospective Comparison of Open and Arthroscopic Ankle Arthrodesis Using Validated Outcome Score with Two-Year Minimum Follow-Up (SS-55) *Alastair Younger, M.B., Ch.B., F.R.C.S.C., David Nicholas Townshend, M.B.B.S., F.R.C.S. (Orth), Matthew Di Silvestro, M.D., F.R.C.S.A., Murray Penner, M.D., F.R.C.S.C., Mark Glazebrook, F.R.C.S.C., Kevin Wing, M.D., F.R.C.S.C.*

Introduction: Ankle arthrodesis remains the gold standard treatment for isolated ankle arthritis. Despite improved techniques a 10% nonunion rate, 9% re-operation rate, 5% below knee amputation rate post ankle arthrodesis are reported. Arthroscopic ankle arthrodesis has been recommended by some as a solution to the relatively high rate of complications associated with the open technique. However, to date no other prospective comparative study has been reported to compare the two fusion techniques.

Methods: Prospective patient data was gathered from consenting patients at baseline, 6 months, one year and two years from two centers, one performing open ankle arthrodesis and one performing arthroscopic arthrodesis. The primary outcome Measures was the Ankle Osteoarthritis Score (AOS). Secondary outcome measures included tourniquet time, length of stay (LOS), non-union rate, and complication rates. A power analysis indicated that 30 patients were required in each group. There were 31 ankles in the open arthrodesis group and 30 ankles in the arthroscopic arthrodesis group. The groups were comparable for age (mean 59.2 vs. 56.0) and BMI (mean 27.9 vs. 29.4).

Results: The AOS score improved in the open group from 56.8 preoperatively to 33.5 at one year ($p<0.05$) and 29.24 at two years ($p<0.05$). The arthroscopic group showed an improvement of score from 56 preoperatively to 17.5 at one year ($p<0.05$) and 17.2 at 2 years ($p<0.05$). The change in score from preop to one year and two years was significantly greater for the arthroscopic group ($p<0.05$). The hospital stay was significantly shorter for the arthroscopic group at 2.5 days vs. 3.7 days for the open group ($p<0.05$). The tourniquet time was not statistically significant 107 mins vs. 99 mins ($p=0.13$). There was one non-union in the open group which successfully united following revision surgery.

Conclusion: This was a prospective comparative study of two very similar groups of isolated ankle arthritis using an arthroscopic and open technique of ankle fusion. Both groups showed a significant improvement in symptoms from baseline with a greater change in AOS score and shorter hospital stay in the arthroscopic group.

Hindfoot Endoscopic Findings of Posterior Ankle Impingement Syndrome in Ballet Dancers (SS-56) *Eiichi Hiraiishi, M.D., Norio Usami, M.D., Hiroko Ikezawa, M.D.*

Introduction: Posterior ankle pain is a common but serious problem in ballet dancers. Certain kinds of pathological conditions have been reported, such as os trigonum (OT) syndrome, fracture of the Stieda process, flexor hallucis longus (FHL) tendinosis and/or tenosynovitis, soft tissue impingement, and so on. They are considered as a pathological unit of posterior ankle impingement syndrome (PAIS). The purpose of this study is to elucidate the pathologies of PAIS and to clarify how to approach and treat these conditions.

Methods: Between September 2007 and August 2010, 35 feet of 32 patients, including only one foot of a male patient, underwent hindfoot endoscopic surgery due to