Serious Complications of Ankle Joint Distraction: Two case studies

Purpose
The Purpose of this poster is to present two case studies involving rare, but potentially serious complications of ankle joint distraction as treatment for degenerative joint disease.

Abstract
Ankle joint distraction is a procedure that is available for patients with degenerative joint disease whose options may be limited to ankle fusion and ankle joint replacement, both which are joint destructive procedures. However, this procedure is not without complications. This paper focuses on two patients who underwent ankle joint distraction with three-ring fixators and reported rare but serious complications. One patient developed a midfoot Charcot arthropathy and the other a deep vein thrombosis that developed into a pulmonary embolus. Both patients received ankle joint distraction utilizing a three-ring external fixator. Two months following the removal of frame fixator she developed a midfoot Charcot arthropathy; the patient developed a deep vein thrombosis that regurgitated, osteopenia, and diabetes mellitus. This patient also received ankle joint distraction as treatment for degenerative joint disease.

Materials and Methods
Two patients status post ankle distraction as treatment for degenerative joint disease and with subsequent complications are presented.

CASE ONE
A 77-year-old female who underwent an ankle joint distraction utilizing a three-ring external fixator. The patient had a medical history consistent of type 2 diabetes of 40 years duration, hypertension, and hyperlipidemia. Thirty weeks following removal of frame fixator she developed a midfoot Charcot arthropathy demonstrating embolism in lungs. Saggittal STIR image exhibiting bone marrow edema and instability of the talocrural joint.

CASE TWO
A 74-year-old female with a past medical history of atrial fibrillation, mitral valve regurgitation, osteopenia, and diabetes mellitus. This patient also received ankle joint distraction with a three-ring external fixator. Two months following the removal of frame fixator the patient developed a deep vein thrombosis that progressed to a pulmonary embolism.

Discussion/Conclusion
Ankle joint distraction has been demonstrated to be a viable alternative to joint replacement and fusion in patients with degenerative joint disease. Deep vein thrombosis and development of Charcot neuro-arthropathy are rare, but potentially serious complications of this procedure. We present these two case studies to illustrate the potential for these complications as well as there management.

Results
Both patients presented recovered from their respective complications and had an otherwise uneventful post-operative course. Both patients had successful distractions with decreased ankle pain and increased range of motion.

References