**Abstracts**

1. **Efficacy of Early Controlled Motion of the Ankle in Non-Operative Treatment of Acute Achilles Tendon Rupture: An Assessor-Blinded RCT**

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**Purpose/Aim of the Study** To investigate if early controlled ankle motion (CALM) can reduce the incidence of DVT compared to IM in the treatment of acute Achilles tendon rupture.

**Methods** The study was performed as a randomized controlled trial. Patients aged 18 to 70 years were eligible for inclusion. Treatment was non-operative. The ECM group performed movements of the ankle 5 times a day from week 3 to 8 after rupture. The control group was IM for 8 weeks. Follow up was performed with Color Doppler ultrasound at 2 and 8 weeks by two experienced radiologists. DVT was a secondary outcome, why a secondary power calculation was performed: 124 patients were required to have a 60% chance of detecting, as significant at the 5% level, a decrease in DVT from 34% in the IM group to 17% in the ECM group.

**Results** 189 patients were assessed for eligibility and randomization: 68 (ECM-group) and 62 (IM-group). All patients participated in the follow up. 62 (47.7%) patients were diagnosed with DVT; 34/69 (49.3%) in the ECM group and 28/61 (45.9%) in the IM group (p=0.70).

**Conclusion** The incidence of asymptomatic DVT was higher than previously reported as 48% presented with DVT. ECM revealed no benefit to IM in reducing the incidence of DVT.

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2. **Deep Vein Thrombosis after Acute Achilles Tendon Rupture: An RCT Comparing Early Controlled Motion of the Ankle with No Motion**

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**Background** Deep vein thrombosis (DVT) following acute Achilles tendon rupture (ATR) is common (up to 34%) and potentially dangerous. Immobilization (IM) is thought to be an important factor in the pathogenesis.

**Purpose of the Study** To investigate if early controlled ankle motion ECM could reduce the incidence of DVT compared to IM in the treatment of acute Achilles tendon rupture.

**Materials and Methods** The study was performed as a randomized controlled trial. Patients aged 18 to 70 years were eligible for inclusion. Treatment was non-operative. The ECM group performed movements of the ankle 5 times a day from week 3 to 8 after rupture. The control group was IM for 8 weeks. Follow up was performed with Color Doppler ultrasound at 2 and 8 weeks by two experienced radiologists. DVT was a secondary outcome, why a secondary power calculation was performed: 124 patients were required to have a 60% chance of detecting, as significant at the 5% level, a decrease in DVT from 34% in the IM group to 17% in the ECM group.

**Results** 189 patients were assessed for eligibility and 130 included from February 2014 to December 2016; 64 ECM and 58 IM. There was no statistically significant differences (p>0.3) between the ECM and the IM groups at 1 year; Mean (SD) ATRS was 74 (18) and 75 (18), respectively. HRW was 60% (21) and 60% (21) of the uninjured limb, and elongation was 18 mm (13) and 16 mm (11), respectively. Correspondingly, there were 6 and 7 re-ruptures. Conclusions ECM revealed no benefit to IM in any of the investigated outcomes.