

## **A Prospective Randomized Trial Comparing the Hansson Pin System® and the Hansson Pinloc System® implants in the treatment of femoral neck fractures**

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### **Introduction**

Non-displaced femoral neck fractures and displaced fractures in younger patients (under 65-70 years) are generally treated with internal fixation. Avascular necrosis, non-union and local pain are common after internal fixation, sometimes leading to subsequent surgery. Many patients are unsatisfied, despite any objective signs of failure. The aim of this study is to compare a new implant for internal fixation, the Hansson Pinloc System®(Pinloc), with the commonly used Hansson Pin System® (LIH). Pinloc consists of 3 parallel hook pins linked by a lateral plate creating rotational and angular stability. The aim of the study is to compare the failure rate and reoperation rate, patient function, pain, quality of life and costs between the implants.

### **Patients and Methods**

Between May 2014 and February 2017, 537 patients above 50 years of age with a femoral neck fracture, were randomized to surgery with either LIH or Pinloc at nine orthopedic departments in Sweden. The fractures were either non-displaced; displaced but the patient was younger than 70 years of age; or above 70 but deemed unfit for arthroplasty. Preinjury EQ-5D- and WOMAC-questionnaires were obtained during initial hospital admission. Follow up at 3 months and 12 months postoperatively included plain x-ray scans, EQ-5D, WOMAC, Timed-Up-and-Go Test and a physical exam.

### **Results**

One year follow-up of the initial 235 patients will be presented.

### **Discussion**

We find it ethically necessary to present intermediate results for clinical guidance, even though the study is ongoing.

### **Conclusion**

Preliminary recommendations will be presented.