

Higher reoperation rates noted after dynamic hip screw fixation of pertrochanteric hip fractures vs. intramedullary nails

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In patients with pertrochanteric hip fractures coupled with a fractured greater trochanter, intramedullary hip screws achieved superior results compared to dynamic hip screws, according to orthopaedic investigators.

Henrik Palm, MD, of the Hvidovre Hospital, University of Denmark, and colleagues assessed the outcomes of 635 consecutive patients with pertrochanteric hip fractures who underwent either intramedullary hip screw (IMHS) or dynamic hip screw (DHS) fixation. They focused on a subgroup of 311 pertrochanteric hip fracture patients with a preoperative fractured greater trochanter. Fixation with IMHS was performed in 158 patients, and DHS were used in 153, according to the study abstract.

“However, the present study is a retrospective cohort study, and future randomized trials in this subgroup of fractures should be performed before profound conclusions,” Palm told Orthopaedics Today Europe in an interview conducted prior to the presentation of the study of the EFORT Congress 2010.

Intraoperative fractures

Intraoperative lateral femoral wall fractures occurred in 42 patients treated with DHS compared to nine in the IMHS group, Palm said.

According to their study abstract, the investigators confirmed fracture of the lateral femoral wall to be a predictor of reoperation. Among the 42 DHS patients with lateral femoral wall fractures, 31% required reoperation vs. 8% whose lateral femoral walls were intact.

Palm noted that only one of the nine IMHS patients with an intraoperative femoral wall fracture required reoperation.

“When the lateral wall is fractured, the lack of lateral support results in a higher risk of reoperation due to the classic reasons — progressive fracture displacement and cut-out of the screw from the femoral head into the hip joint,” Palm said.

Subgroup vs. main group

In the fractured greater trochanter subgroup, 22 of the 153 DHS patients required reoperation, compared with six of the 158 IMHS patients.

These differences would have been overseen if the investigators had not included this subgroup in their study. In the main group of all patients with pertrochanteric hip fractures, reoperation was performed in 4% of IMHS patients and 6% of DHS patients, according to the study abstract.

“Generally speaking, future studies should classify fractures into more specific subgroups when comparing operative procedures — although the demand for patients will be higher and the studies therefore prolonged,” Palm said.

- **Reference:**

Palm H. Intramedullary nailing is superior to the dynamic hip screw in pertrochanteric hip fractures with a fractured greater trochanter. Paper #141. To be presented at the EFORT Congress 2010. June 2-5. Madrid.