

Title:	Early Results of 1,000 Consecutive, Posterior, Single-Incision MIS THA's
Abstract:	<p>INTRODUCTION: Minimally invasive surgical (MIS) techniques have become the standard of care in many areas of surgery including some orthopaedic subspecialties. The purpose of this study is to determine the early risks and benefits of MIS THA in a large cohort of patients.</p> <p>METHODS: Between May 1997 and April 2002, 1,085 consecutive patients undergoing posterior MIS THA using cementless components were followed prospectively. Incision length approximated the Body Mass Index (BMI) / 3 in centimeters. One thousand patients were followed a minimum 24-months to analyze peri-operative and post-operative results, complications, and radiographic findings. These were compared to 50 age-matched, hybrid THA's done through a standard posterolateral approach between April 1994 and April 1997.</p> <p>RESULTS: Mean follow-up was 37 months (24-70). Mean operative time was 57 minutes (33-155). Mean intra-operative blood loss was 347 ml (100-2000). Four hundred one patients received a blood transfusion (40.1%). Mean incision length was 9.6cm (7.0-14.0). Peri-operative complications included 4 deep infections (0.4%), 6 superficial infections (0.6%), 6 patients with minor superficial skin necrosis requiring debridement (0.6%), 31 dislocations (3.1%), 8 nerve palsies (0.8%), and 12 thromboembolic events (1.2%). Mean cup abduction was 40 degrees (30-58) with 6 cups (0.6%) abducted <30 or >55 degrees. Mean cup anteversion was 14 degrees (0-40) with 10 cups (1.0%) anteverted <5 or >30 degrees. Five stems (0.5%) were placed in >5 degrees of varus or valgus. Leg length discrepancy was <7mm in 912 patients (91.2%). Mean hospital stay was 3.8 days (1-23), and mean time to resumption of normal daily activities was 5.1 weeks (1-14). Six cups failed to osseointegrate (0.6%) while no stems were loose. No differences in complication rates or component position were seen in the first 100 THA's compared to the subsequent 900 THA's. Complication rates were slightly lower than in the standard incision group.</p> <p>DISCUSSION: Posterior MIS THA is a safe and effective procedure with acceptable complication rates and component positioning.</p>