

**Direct Anterior Approach Versus Direct Lateral Approach in Total Hip Arthroplasty for Femoral Neck Fractures: Prospective Randomized Controlled Trial**

*Ahmed Samir Mohamed Farahat, MBChB, MD; Khaled Abdel-kader, FRCS (Ortho); Sherif Ahmed Khaled, PhD; Mahmoud Abdel Karim, MBBCh, MD; Mohamed Gobba, MD  
Cairo University - Faculty of Medicine, Cairo, EGYPT*

**Purpose:** The aim of this study was to compare total hip arthroplasty (THA) for femoral neck fractures (FNFs) via direct anterior approach (DAA) versus direct lateral approach (DLA) regarding short-term clinical and functional outcomes and evaluation of complications.

**Methods:** This study was a prospective randomized controlled trial including 50 patients. Patients were randomized using sealed opaque envelopes into 2 groups based on surgical approach—25 patients in each group. Group A included patients who had a THA using a DAA, while Group B included those who had a THA using a DLA. Patients were followed for 6 months; perioperative and postoperative short-term clinical, radiological, and functional outcome using Harris Hip Score (HHS) were documented.

**Results:** Age and gender were comparable between the 2 groups. Body mass index (BMI) is significantly increased in the DAA ( $30.1 \pm 5.4$  vs  $25.1 \pm 2.7$ ;  $P = 0.0313$ ). The DAA had a shorter incision length (10.2 vs 17 cm;  $P < 0.01$ ), less intraoperative blood loss (370 vs 520 mL,  $P = 0.04$ ), and lower self-reported pain (2.3 vs 4.5 visual analog scale [VAS] score;  $P = 0.035$ ). However, the DLA had shorter operative times (72 vs 90 min,  $P < 0.01$ ). We did not record any intraoperative femoral fracture or any lateral femoral cutaneous nerve neuropraxia in the DAA. The DAA had significantly lower variance in cup inclination and anteversion. The DAA had better functional recovery at 3 months based on HHS ( $87 \pm 15$  vs  $76.2 \pm 9$ ;  $P = 0.04$ ) and Timed Up and Go (TUG) test ( $P = 0.001$ ); however, functional recovery at 6 months was similar between the 2 groups.

**Conclusion:** This study suggests that patients with FNFs treated with THA with DAA might have functional advantages in early recovery period compared to the DLA. There is no radiological evidence that DAA leads to malposition of the implant. The DAA for THA in FNF is a safe procedure with a lower dislocation rate; however, no functional difference was found at 6-month follow-up.