

## **The Fate of the Patient with Superficial Dehiscence Following Direct Anterior Total Hip Arthroplasty**

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**INTRODUCTION:** Direct anterior approach (DAA) total hip arthroplasty (THA) has been associated with higher rates of superficial incisional dehiscence following surgery. However, limited data is available regarding outcomes following initial treatment of this complication. This study aimed to evaluate patient risk factors, repeat reoperations, and survivorship free from any revision in those who develop superficial wound dehiscence following DAA THA.

**METHODS:** We identified 3687 patients who underwent a primary DAA THA between 2010-2019 from our institutional total joint registry. Of these, 98 (2.7%) patients developed a superficial wound dehiscence requiring intervention [irrigation and debridement (I&D; n=40) or wound care with or without antibiotics (n=58)]. Dehiscence was noted at median 27 (range 2-105) days. These patients were compared to patients who did not have a superficial wound complication (n=3589). Landmark Kaplan-Meier survivorship analysis was performed to account for immortal time bias with a 45-day landmark time. Mean follow-up was 4 years.

**RESULTS:** Patients with superficial wound dehiscence compared to those without, respectively, were more often female (65% vs. 53%, p=0.018), had increased mean body mass index (BMI; 34 vs. 28 kg/m<sup>2</sup>, p<0.001), and had higher American Society of Anesthesiologist scores (ASA 3; 44% vs. 29%, p=0.006). There were 3 (3.1%) non-revision reoperations (index I&Ds excluded): 2 repeat superficial I&Ds and 1 iliopsoas tendon release. There was no difference in 4-year survivorship free from any revision in those with superficial dehiscence compared to those without (96% vs. 98%, respectively, p=0.1). There were 2 (2.0%) revisions in the superficial dehiscence group: 1 for periprosthetic joint infection (PJI) and 1 for aseptic femoral loosening.

**DISCUSSION AND CONCLUSION:** Superficial wound dehiscence following DAA THA was associated with female sex, higher BMI, and increased comorbid status. Fortunately, with proper index management, the risk of revision THA and PJI was not increased for these patients.