

A Protective Retractor Reduces Wound Complications in Direct Anterior Total Hip Arthroplasty

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INTRODUCTION:

Wound complications following direct anterior approach total hip arthroplasty (DA THA) have been reported to be higher than other approaches. This retrospective study compared the incidence of wound complications within 90 days of surgery in primary and conversion DA THA cases performed with standard metal retractors versus a protected incisional retractor. Reoperations due to wound complications were also compared.

METHODS:

Sixty cases consecutively performed with metal retractors were compared to 170 cases consecutively performed with a protected incisional retractor using blinded review of cases. All cases were performed by a single Fellowship-trained surgeon at the same academic healthcare center using the same perioperative, surgical, and running subcuticular incision closure protocols. All patients received a closed-incision negative-pressure wound therapy dressing. Wound complications within 90 days of surgery were defined as one or more of the following: wound dehiscence >2mm, wound drainage, wound necrosis, suture granuloma, wound hematoma, wound seroma, superficial incisional surgical site infection, or deep incisional surgical site infection. The sample consisted of 51.7% women with an average age and body mass index (BMI) of 65.8 ± 11.9 years and 27.8 ± 4.2 kg/m².

RESULTS:

Patient sex, age, BMI, ASA-PS classification, preoperative A1C, diabetes, smoking, immune system compromise, procedure type, and surgical indication did not differ in the two groups ($P \geq .153$). The incidence of any wound complication within 90 days was 18.3% for cases using metal retractors and 4.1% when a protected retractor was used ($P = .001$). Eight percent of the former cases and 1% of the latter cases resulted in a reoperation within 90 days ($P = .014$).

DISCUSSION AND CONCLUSION:

Findings indicate that a protected incisional retractor results in a clinically meaningful reduction in wound complications and related reoperations following DA THA, making it a realistic surgical option for patients with pre-identified risk factors for complications.