

Minimal Incision Surgery as a Risk Factor for Early Failure of Total Hip Arthroplasty

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Abstract

Background

Minimal incision total hip arthroplasty (MI THA) techniques were developed to decrease postoperative pain and recovery time. Although these techniques have increased in popularity, the long-term survivorship of these procedures is unknown.

Questions/purposes

We therefore investigated whether the time to revision in our referral practice was shorter for patients who underwent primary MI THA compared to primary traditional THA.

Methods

We retrospectively reviewed 46 revision THAs performed during a 3-year period. We excluded revisions performed for infection and rerevisions. Patients with incisions less than or equal to 10 cm were defined as having had MI THA. Fifteen of the 46 patients (33%) had undergone primary MI THA. At the time of primary index THA, the mean ages of the MI and non-MI patients were 65 years and 55 years, respectively.

Results

The mean time to revision was 1.4 years for the MI patients compared with 14.7 years for the non-MI patients. Twelve of the 15 patients having MI THA required revision within 2 years of primary THA compared to 4 of the 31 patients without MI surgery (OR = 26.5, 95% CI 4.4–160.0). There were no differences between the groups with regard to age, gender, or body mass index. The most common reasons for revision in the MI THA group were intraoperative fracture and failure of femoral component osseointegration.

Conclusions

Our data suggest MI THA may be a risk factor for early revision surgery and the long-term survival therefore may be lower than that for non-MI surgery.

Level of Evidence

Level III, therapeutic study. See Guidelines for Authors for a complete description of levels of evidence.

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Each author certifies that his or her institution approved the human protocol for this investigation, that all investigations were conducted in conformity with ethical principles of research, and that informed consent for participation in the study was obtained.

This work was performed at Stanford University Medical Center, Redwood City, CA, USA.