

Total Hip Arthroplasty After Previous Fracture Surgery



Peter C. Krause, MD*, Jared L. Braud, MD,
John M. Whatley, MD

KEYWORDS

- Total hip arthroplasty • Hip fracture • Posttraumatic arthritis • Failed fracture fixation
- Acetabular fracture • Intertrochanteric fracture • Femoral neck fracture

KEY POINTS

- Total hip arthroplasty can be a very effective salvage treatment for both failed fracture surgery and hip arthritis that may occur after prior fracture surgery.
- The rate of complications is significantly increased including especially infection, dislocation, and loosening.
- Complications are more likely to occur after failed open reduction and internal fixation than after posttraumatic arthritis.
- Adequately ruling out infection before hip arthroplasty can be difficult. The best predictor of infection is a prior infection.
- Long-term outcomes can be comparable to outcomes in other conditions if complications are avoided.

INTRODUCTION

Total hip arthroplasty (THA) is a very effective treatment option for both posttraumatic arthritis that can occur after prior hip fracture surgery and failed hip fracture fixation. Modern acetabular fracture surgery techniques can result in hip preservation and excellent long-term functional outcomes in 70% to 80% of cases.^{1,2} Higher-energy fracture patterns, significant articular impaction, and failure to achieve an anatomic reduction can predispose patients to the development of secondary hip arthritis. In patients who are physiologically fit and have failed conservative management, THA can provide appropriate pain control and functional restoration.³⁻⁸

Avascular necrosis and nonunion after femoral neck fracture surgery, which may occur in 15% to 20% of cases,^{9,10} can also be effectively treated with hip replacement.¹¹ Younger patients with a femoral neck nonunion but with a preserved hip joint can be treated successfully with a valgus intertrochanteric osteotomy.¹² A less common cause of hip posttraumatic arthritis is the femoral head fracture, which may lead to avascular necrosis oftentimes related to an initial traumatic dislocation.

Hip replacement can also be used as a salvage for failed hip fracture surgery.¹³⁻³³ If the hip can be saved by revision fixation, it is usually recommended first. Successful functional outcomes with a low rate of complications have been reported

Disclosures: none.

Department of Orthopaedic Surgery, Louisiana State University Health Sciences Center, 1542 Tulane Avenue, 6th Floor, New Orleans, LA 70112, USA

* Corresponding author.

E-mail address: pckrause@mac.com

Orthop Clin N Am 46 (2015) 193-213

<http://dx.doi.org/10.1016/j.ocl.2014.11.006>

0030-5898/15/\$ – see front matter © 2015 Elsevier Inc. All rights reserved.

with revision internal fixation.^{34–36} If the joint is not preserved, then arthroplasty or arthrodesis is the principal surgical option. In cases of older patients with poor bone quality, arthroplasty may be preferable to revision fixation even if the joint is preserved. The published results of THA and hemiarthroplasty in this setting have also been very good with a low rate of serious complications. Rarely, resection arthroplasty should be considered in very ill patients or as a salvage in difficult-to-control infections.

INDICATIONS AND CONTRAINDICATIONS

Patients with significant hip pain with severe arthritis may be candidates for surgery (Fig. 1). In the absence of gross implant instability or nonunion, these patients should generally be tried on a nonoperative treatment protocol that includes some combination of antiinflammatories, conditioning, and lifestyle modification before considering surgery. Patients with findings of significant arthritis on radiographs can sometimes function relatively well for years.

In the absence of end-stage arthritis, but in the presence of hardware failure, revision fixation may be an option in otherwise healthy patients. The decision about whether to proceed with revision fixation or hip arthroplasty should be made based on the patient's age and functional status as well as radiographic findings including bone quality. In lower-demand patients, hemiarthroplasty is also an option. Hip fusion is less commonly used now in the younger patient population because of improvements in joint replacement technology. The only absolute surgical contraindication to arthroplasty is an ongoing active infection (Table 1).

SURGICAL EVALUATION AND TECHNIQUES AND PROCEDURES

Medical Evaluation

Surgical assessment begins with optimizing the patient medically for surgery. Routine laboratory studies are performed, and patients are seen by their primary care physicians. The authors routinely recommend that patients address

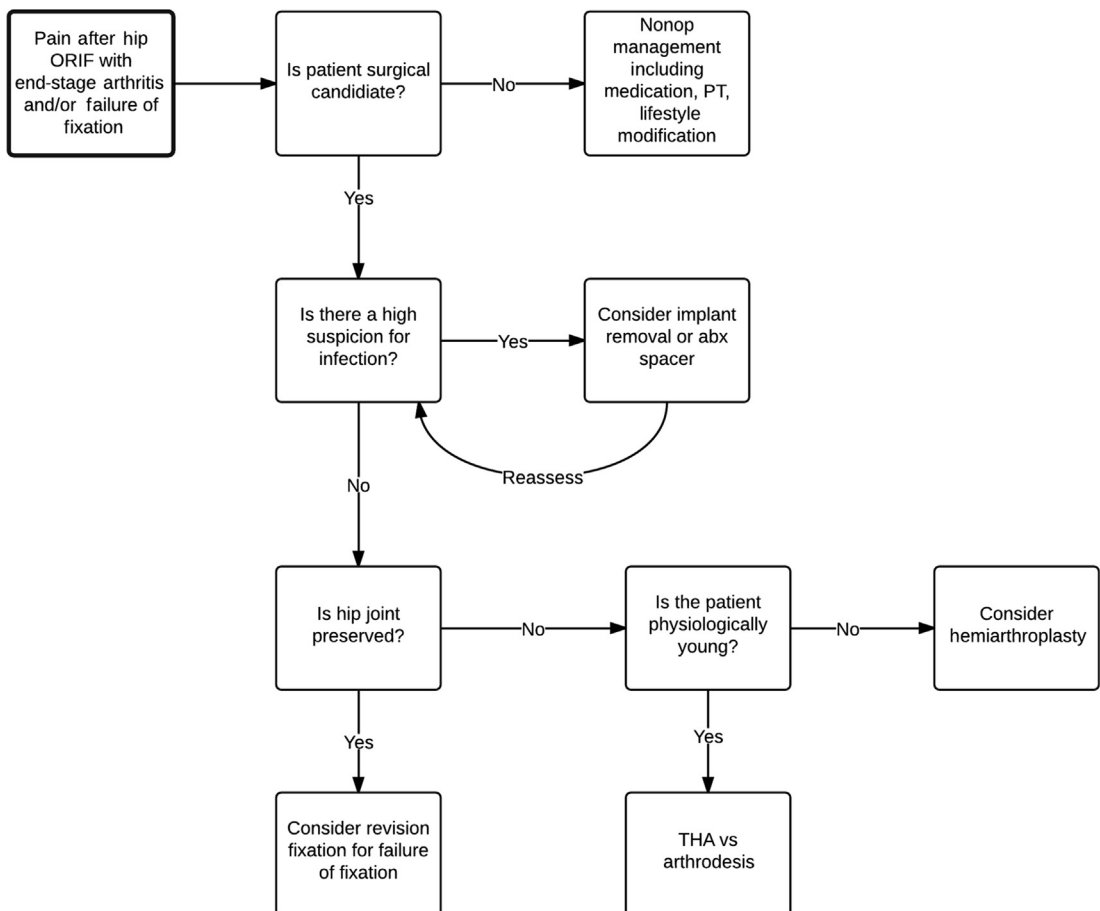


Fig. 1. Decision tree for managing pain after hip fracture surgery.

Download English Version:

<https://daneshyari.com/en/article/4082790>

Download Persian Version:

<https://daneshyari.com/article/4082790>

[Daneshyari.com](https://daneshyari.com)