On-Table Direct Anterior Total Hip Arthroplasty in a Patient With an Ipsilateral Below-Knee Amputation

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Introduction

Ipsilateral below-knee amputation represents a unique challenge during on-table direct anterior total hip arthroplasty. A paucity of literature is available on this technique, and the available literature mainly describes the technique in the trauma setting. This video demonstrates the surgical technique and prosthetic considerations for on-table direct anterior total hip arthroplasty in a patient with an ipsilateral below-knee amputation.

Case Description

The patient is a 63-year-old woman with an ipsilateral traumatic below-knee amputation who presented with radiographic evidence of Tönnis grade 3 left hip osteoarthritis. Nonsurgical treatment options failed; therefore, left total hip arthroplasty was indicated. After a discussion of the risks and advantages of the surgical approach, the patient elected to proceed with on-table direct anterior total hip arthroplasty. Consultation was made with the patient's certified prosthetist/orthotist, who performed necessary adjustments to allow for fitting of the prosthesis to boot traction without compromising skin integrity. Routine direct anterior total hip arthroplasty was performed. The patient was allowed to fully bear weight postoperatively, with anterior hip precautions maintained for 1 month postoperatively. At 1 month postoperatively, the patient was very satisfied with her total hip arthroplasty outcome.

Discussion

This video demonstrates on-table direct anterior total hip arthroplasty in a patient with an ipsilateral below-knee amputation, which is performed safely and effectively. Boot traction can be safely applied through the prosthesis, and the leg can be safely manipulated to perform the surgical procedure. Patients with a below-knee amputation should not be discouraged from on-table direct anterior total hip replacement if the procedure indicated. Consultation with a certified prosthetist/orthotist is paramount to ensure any necessary adjustments are made preoperatively.