

Syme Amputation as an Alternative to Below-Knee Amputation

Follow-up Results in 26 Patients

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Purpose: The Syme amputation is often overlooked as an alternative to below-knee amputation in cases of life and limb threatening foot infections and gangrene. The purpose of this study is to examine pre-operative criteria and outcomes of this surgery in patients who were at imminent risk of leg amputation. We herein present our descriptive statistics and follow-up results.

Materials/Methods: In this prospective study, pre-operative data and post-operative results were assessed for 26 consecutive patients who underwent a Syme amputation for non-healing ulceration, osteomyelitis, and/or gangrene. Twenty-four patients were diabetic and 11 patients had non-reconstructable peripheral vascular disease (PVD).

A Syme amputation was performed on each patient followed by wound care and appropriate antibiotics as necessary. Patients were followed prospectively until healing, major amputation, or death.

Results: At a mean follow up of 43 weeks, 17 patients (65.4%) did not require more proximal amputation, 13 (15%) were ambulating with a prosthesis, 8 (30.7%) required below-knee (BKA) or above knee amputations (AKA), and 1 patient died. Analysis of pre-operative data such as skin perfusion pressure, PVD, smoking, age, creatinine, hemoglobin A1C, and Methicillin Resistant Staph Aureus did not show a significant difference between patients who required more proximal amputation and those who did not.

Discussion/Conclusion: Many surgeons are reluctant to consider a Syme amputation for patients with diabetes and/or PVD who have limb-threatening infections. While consideration must be given to tissue perfusion, the Syme amputation can be a viable alternative to below-knee amputation.