Long Term Outcomes Following Syme's Amputation

Michael Pinzur, MD, Adam Schiff, MD, Elissa Finkler, MD

Category: Ankle,Diabetes,Trauma

Keywords: amputation, diabetes, infection, trauma

Introduction/Purpose: The metabolic cost of walking following Syme's ankle disarticulation amputation is minimally more than similar non-amputees. The ability to end-bear makes prosthetic fitting relatively simple, and very few patients require extensive rehabilitation or placement in a skilled nursing or rehabilitation facility. In spite of these potential benefits, there is a paucity of objective information on the actual long term outcomes.

Methods: Fifty-one patients were identified who underwent single stage Syme's ankle disarticulation amputation with excision of the lateral and medial malleoli by a single surgeon during a twenty three year period. None of these patients had sufficient tissue to allow amputation at the transmetatarsal or tarsal-metatarsal levels. Thirty-three underwent amputation due to diabetic forefoot infection, eleven secondary to crush injury, three for non-diabetic infection, three for non-correctable acquired deformity and one for neoplasm. The average age at surgery for the di-abetic patients was 62.1 (range 36-81) years, with a follow-up of 6.8 (4-11.6) years. The nondi-abetic patients averaged 37.8 (range 21-65) years, with a follow-up of 9.3 (range 2.2-25.0) years. Patients who were alive and could be contacted were invited to complete a Short Musculoskele-tal Functional Assessment (SMFA) questionnaire that was scored for functional, mobility and bothersome indices.

Results: Seventeen of the 33 diabetics died. Four (12.1%) were converted to the transtibial amputation level. One of the non-diabetics had died and one (5.5%) was converted to the transtibial amputation level. Eleven of the thirty-three patients who were con-tacted completed the SMFA. All of these patients demonstrated favorable outcome scores in the mobility, functional and bothersome indices (non-diabetic mean mobility score of 17.2, function-al index of 14.7 and bothersome of index of 16.7 compared to 34.7, 29.9 and 30.6 in the diabetic patients, respectively).

Conclusion: The objective information derived from this investigation supports the opinion that patients with Syme's ankle disarticulation amputation appear to fare better than sim-ilar patients with transtibial amputation. This data also refutes the notion of high complication rates and difficulties with prosthetic fitting. These patients require less rehabilitation and achieve improved levels of functional independence as demonstrated by favorable functional, mobility, and bothersome indices.

Foot & Ankle Orthopaedics, 2(3)
DOI: 10.1177/2473011417S000326