Abstract:

The hindfoot is a special anatomical location, requiring unique forms of reconstruction of the thick, durable heel pad, the underlying calcaneus, and the Achilles tendon and its thin, pliable soft tissue envelope. Perhaps more than in any other region of the foot, the heel poses a reconstructive challenge to the surgeon who must consider both form and function when repairing wounds in this location. There are many possible reconstructive options, including local, distant, and free flaps. These flaps could be of muscular, myocutaneous or fasciocutaneous tissues. We reconstructed heel defects in 46 consecutive patients using several reconstructive options, and reviewed the results. Patients were classified according to preoperative demographic variables, including size, depth, site, etiology, age, vascularity, sensation, Achilles tendon condition, bone exposure or bone loss, and the patient’s functional needs. Neither partial nor total flap losses were observed; the reconstructions were evaluated and considered satisfactory both by surgeons and patients if they fulfilled certain criteria, namely complete coverage, durability upon weight bearing and walking, sensation, donor site morbidity, and cosmetic appearance. No recurrences of the defects were observed during the follow-up period. Heel reconstruction is a challenging task for foot and ankle reconstructive surgeons. Every step should be taken to avoid recurrences and ulcerations. In this article we present a surgical reconstruction algorithm that may allow easy and reliable decision making based on the preoperative assessment of the defect and other clinical features. Level of Clinical Evidence: 2.

Keywords:

Key Words Achilles tendon; algorithm; flap; heel ulcer; wound coverage

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