Partial Calcanectomy for Heel Ulcers Revisited – a Possible Solution to a Difficult Problem

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Introduction/Purpose: Diabetic heel ulcers are a major problem, often leading to amputations. Partial or total calcanectomy has been described as a possible salvage procedure, by allowing soft tissue coverage after debridement of necrotic and infected tissue, and possibly allowing walking. We report on our experience with this technique which is not commonly used.

Methods: Fourteen patients, who presented with diabetic heel ulcers between 2010-15, and who were BKA candidates, underwent debridement and partial calcanectomy. Average age was 67.8 ±12.7 years, M:F ratio was 6:1.

Extent of procedures, need for additional procedures and complications were noted. Outcome assessment included wound closure and walking status. No patients were lost to follow up.

Results: Nine patients underwent partial calcanectomy as the initial procedure while others underwent prior debridement. Calcanectomies were subtotal (1), wedge (5) or partial (8). Primary closure was mostly achieved (11), the remainder requiring local skin graft (2) or myocutaneous flap (1). Ten patients underwent re-vascularization prior to calcanectomy, either angiographic (8) or bypass (2).

Most calcanectomies (9/14) healed successfully, while five subsequently required amputations. Most failures were noticed within 24 days, with similar prevalence in wedge and partial calcanectomies. One patient had wound complications requiring BKA.

At one year, the nine patients had full wound closure and could bear weight. Five patients regained full ambulatory status wearing specially modified shoes with custom fillers.
Conclusion: Partial calcanectomy is a little-known procedure, that is a viable alternative to BKA. We present our positive experience with this procedure, which in a majority of cases not only prevented BKA, but also allowed weight bearing. Poor vascular supply is not necessarily a contraindication, as re-vascularization prior to calcanectomy is a viable option.