

HEEL RECONSTRUCTION WITH CALCANEAL OSTEOTOMY AND PEDICLED MEDIAL PLANTAR FLAP: A CASE REPORT

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INTRODUCTION:

We report a case of heel deformity with plantar defect in a patient who presented with right heel pain and inability to weight bear following a traumatic event. She had sustained open comminuted right calcaneal fracture with heel pad loss resulting in prominent calcaneum and subsequently subtalar osteoarthritis. Heel reconstruction was carried out with calcaneum osteotomy and subtalar fusion done to deal with the bony deformity and pedicled medial plantar flap and full thickness skin graft for soft tissue defect and wound closure. Post operatively patient had improved aesthetic and functional outcomes and she was able to return to her normal activities.

CASE REPORT:

The patient is a 45-year-old lady who was involved in a motor vehicle accident one year prior to presentation. She had sustained open comminuted intra-articular right calcaneum and degloving injury of right heel pad. During initial surgery, wound debridement and K-wiring of calcaneum was done, however it was complicated with infection and heel pad necrosis.

Another surgery was performed to debride the necrotic tissue and negative pressure wound therapy was applied. Her wound healed well with the remaining calcaneum becoming prominent, causing her pain upon weight bearing. She required silicon insole during walking but the pain was further aggravated by subtalar osteoarthritis.

A combined surgical effort involving Foot and Ankle unit together with Plastic Surgery and Reconstructive Microsurgery unit was planned with the aim of getting the patient back on her foot. Calcaneal corrective osteotomy and subtalar fusion with pedicled medial plantar flap and full thickness skin graft was performed at 14 months post initial trauma. She recovered well from the surgery and subsequently able to weight bear and ambulate unsupported at 4 months post surgery.



Figure 1: Plain radiographs of right calcaneum showing before and after surgery



Figure 2: Clinical photos of right heel before and after surgery

DISCUSSIONS:

Open comminuted intra-articular calcaneal fractures had significantly high rate of infection with high percentage of amputation. In salvaged limbs, subtalar osteoarthritis is one of the commonest late complications. Whereas soft tissue defects in the weight bearing region of the foot can result in substantial restriction in quality of life. Medial plantar area is a non-weight bearing area with similar skin quality as the rest of the plantar thus it is a durable option for weight-bearing plantar defect with acceptable aesthetic and functional outcome.

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