Heel Reconstruction With Osteofasciocutaneous Flap Of Deep Circumflex Iliac Artery: A Report Of Two Cases

¹See LP, ²Faisham WI, ²Ariff MS, ²Nor Azman MZ, ³Saad AZ, ²Sahran Y ¹Department of Orthopaedic, International Islamic University Malaysia, Kuantan Pahang, Malaysia ²Orthopaedic Oncology and Reconstruction Unit, Universiti Sains Malaysia, Kelantan, Malaysia ³Plastic and Reconstruction Unit (Surgery), Universiti Sains Malaysia, Kelantan, Malaysia

INTRODUCTION:

Heel reconstruction following injury or surgical intervention remains a challenge. It requires combination of osseous and soft tissue coverage to ensure good limb function and cosmesis. We report two clinical cases in which they were reconstructed with vascularised iliac bone graft following wide resection of tumour and traumatic bone loss.

MATERIALS & METHODS:

First case is a 19-year-old man with a left calcaneal chondroblastoma. He underwent total calcanectomy for local oncologic control. Second case is an unfortunate 6-year old boy with severe degloving injury over his right heel with massive bone loss of the underlying calcaneum. In both cases, the calcaneum and the heel pad were reconstructed with osteofasciocutaenous flap of deep circumflex iliac artery. Good surgical and functional outcomes were observed.

DISCUSSIONS:

Chondroblastoma is a rare, benign, locally aggressive tumor. In cases involving the calcaneum. wide resection increases difficulty for reconstruction due to its limited surrounding soft tissue. Similarly, such problem is seen in cases of traumatic injuries around the heel especially when there is bone and massive heel pad loss. The osteofasciocutaenous vascularised iliac graft is a good donor as it can be shaped as a heel, fused to the cuboid and talus, as well as providing load support and tissue coverage. Hypertrophy of the composite graft will eventually facilitate the stability and function of the foot.

CONCLUSION:

Osteofasciocutaneous flap utilising the deep iliac circumflex artery is a good option for osseous and soft tissue reconstruction of the heel in oncologic as well as traumatic injuries.



Figure 1: Ankle Xray: after calcaneal reconstruction (Lateral view)



Figure 2: Patient able to tip toeing.

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