Reconstruction of the thumb amputation at the carpometacarpal joint level by groin flap and second toe transfer

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Introduction

Amputation of the thumb at the carpometacarpal (CMC) joint level is very disabling to the individual. The resultant functional disability is graded to be as high as 40% of the hand. Adaptation of the individual following traumatic loss of thumb is more difficult and incomplete than in congenital loss of thumb. Pollicisation is the recommended method of reconstruction for thumb loss at the CMC joint level. In some instances, the trauma which resulted in the amputation of the thumb may in addition cause significant amount of skin and soft tissue loss and amputation of other fingers making option of pollicisation impossible. In such instances, we need an alternate method of reconstruction. Toe transfer in such instances though technically challenging is probably an option.

Large series of toe transfers to the hands have been published but no series specifically deals with the technical considerations associated with toe transfer for thumb amputation at CMC joint level and their outcome.1–5 In this article we are presenting our experience of reconstructing eight patients with amputation of the thumb at the CMC joint with second toe transfers with preliminary groin flap cover and the technical considerations which influence the outcome.

Materials and methods

During the period of 2002–2011 we had eight cases of proximal thumb amputation at or proximal to the carpometacarpal (CMC) joint. Table 1 details the nature of injury, associated injuries, type of soft tissue cover provided, skeletal fixation, tendons, nerves and