

Abstract

Hand & Foot Dorsum Reconstruction in Children using Parascapular Free Flap

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Because traumatic tissue damage on hands and feet often lead to loss of function, permanent deformity, prompt and adequate reconstruction is essential. For children, future growth, as well as function and esthetics, must be taken into account. Several techniques have been employed to reconstruct hand and foot dorsum defects of children.

However, skin graft and muscle free flap with skin graft cannot prevent contracture and will interfere with normal growth. Fasciocutaneous free flap reduces contracture and enables early physical therapy, decreasing the need for additional surgical intervention.

Parascapular flap is particularly suitable because it has reliable pedicle and is relatively thin. There is little functional loss in the donor site, and also simultaneous extensor tendon reconstruction of hand and foot is possible. The disadvantage of this technique is that postoperative defatting is needed to adjust volume. Our department has achieved satisfactory results using this approach, and would like to report 13 cases of hand and foot reconstruction using parascapular flap in patients under the age of 15 (from March, 1998 to May, 2003).

Key Words: Free flap, Children.

Harii Ohmori(1975)† groin flap

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 2 5 ,
 1-3 가 가 8 .
 가.
 (lateral position)
 (the lateral border of scapula), (teres major muscle), triangular space
 triangular space
 (cutaneous branch of circumflex scapular artery)
 triangular space 가
 1998 3 2003
 5 5 2 15 13 2
 11 8 11 2 35
 1 12 (Table 1). triangular space

Table 1. Summary of 13 cases

| Patient No. | Sex/Age | Location | Flap Size (cm) | Follow up (months) | Combined Surgery |
|-------------|---------|----------|----------------|--------------------|------------------|
| 1 | M/11 | Lt.foot | 12X6 | 62 | Tendon z-plasty |
| 2 | M/2 | Rt.foot | 5X8 | 61 | - |
| 3 | M/3 | Lt.foot | 8X8 | 55 | - |
| 4 | M/2 | Lt.foot | 15X10 | 53 | - |
| 5 | M/7 | Rt.foot | 16X7 | 51 | - |
| 6 | M/9 | Rt.hand | 14X8 | 49 | Tendon transfer |
| 7 | M/6 | Rt.foot | 6X3 | 46 | Vein graft |
| 8 | M/5 | Lt.foot | 14X4 | 19 | - |
| 9 | M/4 | Rt.foot | 21X7 | 17 | - |
| 10 | F/6 | Rt.foot | 8X7 | 17 | - |
| 11 | M/6 | Rt.foot | 20X7 | 13 | - |
| 12 | F/5 | Lt.foot | 10X5 | 8 | - |
| 13 | M/8 | Lt.foot | 12X4 | 8 | - |

(Fig. 1, 2).

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13

13

1964 Malt McKhann

12

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Harii



Fig. 1. (A, B) A 5-year-old boy with hypertrophic scar contracture on left foot by traffic accident. (C, D) Postoperative view at 20 months follow-up. A parascapular flap was used to cover the dorsum of foot. Parascapular flap has provided normal growth and good esthetic result.

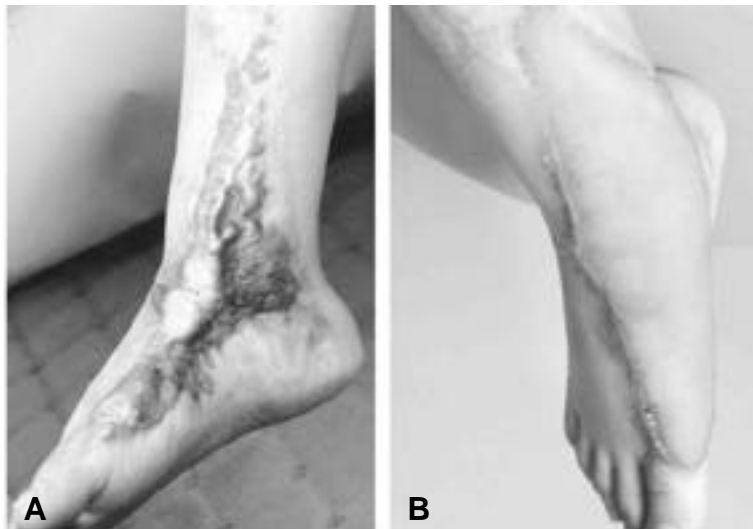


Fig. 2. (A) 4-year-old boy with a hypertrophic scar contracture on right foot. (B) Postoperative view at 10 months follow-up.

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