Gluteal Fascio-cutaneous Flap For Reconstruction Of Lower Leg Defects

Dr. Masood H.Khan, M.S., M.S.
Dr. Arshad Hafeez Khan, M.S., M.Ch.
Dr. M.Yaseen, M.S., M.Ch.
Dr. F.A.Bhat, M.S.

KEY WORDS

Fascio - cutaneous flaps, Full thickness defects.

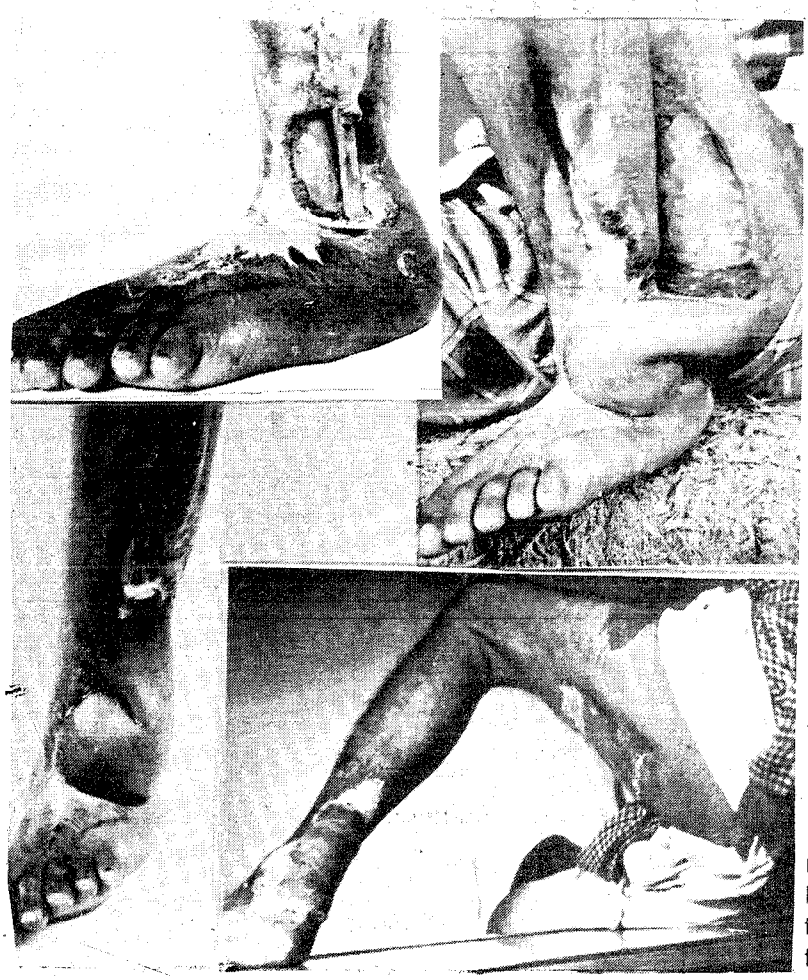
ABSTRACT

Reconstruction of full thickness defects of lower leg by Ipsilateral inferior gluteal fasciocutaneous flap is presented. This flap is based on the decending branch of the inferior gluteal artery.

INTRODUCTION

The problem of skin loss of the lower limb has received attention from the very beginning. Various methods have been described, having their own advantages and disadvantages. It includes locally rotated flap, Jump flap from abdomen, cross leg flap, cross thigh flap, skin grafted muscle flap, myocutaneous flap and free flaps. Singh & Katpadia (1981) reported tube-pedicle flap from thigh for resurfacing defects of the lower extremity. Thigh is a major doner site, having adequate muscle padding that takes split-skin graft rapidly. Roy, Majumdar and Chowdhury (1990) reported Fascio-cutaneous flaps to resurface leg and foot defects.

Photographs (1-4)



Figures :

1. Pre-Operative Defect (Traumatic)
2. Gluteal Flap Placement over the Defect
3. Flap Detatched. Defect Covered.
4. Final Results.

MATERIAL AND METHODS

This procedure was carried out in five patients and are subject of discussion.

Inferior gluteal fasciocutaneous flap of 20 x 10 cms. was used to cover these defects. The flap was delayed and after two weeks of delay, the knee was flexed and the gluteal flap placed at the recipient site. The raw area was covered by split thickness skin graft.

Inferior Gluteal fasciocutaneous flap is a skin fascial flap based on an axial vascular pedicle, a descending branch of inferior gluteal artery. This flap extends beyond the inferior border of the gluteus maximus muscle, incorporating the posterior aspect of thigh. The descending branch of inferior gluteal artery and its venae commitantes enters the thigh at the lower border of gluteus maximus muscle near a point midway between ischium and the greater trochanter.

After three weeks, the flap was detached and the remaining area of the defect covered by flap.

DISCUSSION :

Most of the defects of the lower leg and foot require full thickness cover which can be achieved by cross leg flap, cross thigh flap, Dorsalis pedis flap, inferiorly based fasciocutaneous flaps and free flaps.

Due to paucity of skin below the knee, inferior gluteal flap can be used which is a skin fascial flap based on a definite vascular pedicle. It is easy to raise, quick to execute and highly reliable. Moreover, the donor site remains well hidden.

TABLE - 1 :
History, Operation and Complications.

Case	Sex	Age	Mode of injury	Defect (Chronic Ulcer)	Operation	Complication on 5th day.
1.	M	32YR	Motor Cycle (Silencer Burn)	Post. surface lower leg flap 3" x 2"	Gluteal	None
2.	M	28Yr.	(Silencer Burn)	5" x 3"	Gluteal	Oedema of the flap.
3.	M	30yr	(Tractor injury)	4" x 2 "	Gluteal flap	Oedema of the flap.
3.	M	30 Yr	(Tractor injury)	4" x 2"	Gluteal	Mild epidermalloss 1cm.
4.	M	20Yr	(Silencer Burn)	4" x 3"	Gluteal flap	None
5.	M	25Yr	(Silencer Burn)	2" x 2"	Gluteal flap	Infection and flap separation.

REFERENCE :

1. **Collin Roy, Bijoy Majumdar and [illegible] R[illegible]. Chowd[illegible]ri:** Fascioutaneous flap - A versatile te[illegible]qu[illegible]o resu[illegible]e[illegible] and foot. Ind. Journal of Plastic Surgery (1990) 23 [illegible]pp 88-93.

2. **Morris, A.M.;** The place of the cross leg flaps in Reconstructive Surgery of the lower leg. A review of 165 cases. Brit. J. Pl. Surgery. 1978, 31, 138.

3. **Ponten, B.;** The fasciocutaneous flap: its use in soft tissue defects of the lower leg. Brit. J. of Pl. Surgery 1981, 34, 215.

4. **V.S.Singh, F.M. Tripathi;** Use of Fasciocutaneous flaps for defects of lower extremity. Ind J. of Pl. Surgery, 1985. Vol. 18(2) pp. 28 - 34.

5. **Yoshimura, M. Imura, S; Shinamura, K. and Nomura, S.;** Peroneal flap for Reconstruction in the extremity. Plastic & Reconst. Surg. 1984. 74, 402.

AUTHOR'S NAME AND ADDRESS:

1. Prof. Masood H.Khan. M.S., M.S. Chairman
2. Dr. Arshad Hafeez Khan, M.S. M.Ch. Lecturer.
3. Dr. M. Yaseen M.S., M.Ch., Registrar.
4. Dr. F.A. Bhat, M.S., Resident.

Unit of Plastic & Reconstructive Surgery,
J.N.Medical College, A.M.U., Aligarh.