



ORIGINAL RESEARCH PAPER

Plastic Surgery

VERSATILITY OF FASCIOCUTANEUS FLAPS IN COVERAGE OF DEFECTS OF LOWER LEG

KEY WORDS: fasciocutaneous, flaps, local, lower limb, trauma**Dr.R.Vidhun Raj Barath**

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ABSTRACT

As a well known fact use of Fasciocutaneous flap came into use from 1981. There has been a consistent development in the outcome and technique of raising. With the use of Doppler this has been refined to such an extent to avoid complication. In our setup of injuries trauma been more common, the use of these flaps have become a constant answer to the defects of the leg.

INTRODUCTION

Fasciocutaneous flaps are tissue flaps that include skin, subcutaneous tissue and the underlying fascia. Including the deep fascia with its prefascial and subfascial plexus enhances the circulation of these flaps. They can be raised without skin and are then referred to as fascial flaps.

MATERIALS AND METHODS

Total of 84 cases were included in the study in a time period of 18 months. All cases were referral from orthopedics department. Most of them were chronic wounds with bone defects requiring flap cover.

ETIOLOGY

Trauma (63%) wheelspoke injury (14%) Trophic ulcer (0.5%) Osteomyelitis (0.5%) Marjolin ulcer (0.8%) diabetic ulcer (0.2%)

LOCATION

Lower 1/3rd (62%), Upper 1/3rd (24%) Middle 1/3rd (4%), Heel Defect (4%), Others (2%).

DISTRIBUTION

Up to 20 yrs (11%), 21-30 yrs (38%), 31-40 yrs (16%), 41-50 yrs (13%), 51 yrs > (17%)

CLASSIFICATION

Cormack & Lamberty (modified) Type A – has fascial plexus, Type B – single perforator, Type C – multiple perforators. Mathes & Nahai's Type A – Direct cutaneous, Type B – Septocutaneous, Type C – Musculocutaneous

FLAPS

Superiorly based, Inferiorly based, Cross leg flap, RSA flap, Calcaneal flap.



Figure 1: fasciocutaneous flaps

POST OP MANAGEMENT

Frequent monitoring, Hematoma evacuation, Dressing change alternate days, Prevent infection, Look for necrosis at the tip.

FOLLOW UP

Patient should be taught about cleaning, every fortnight visit followed by bimonthly visit, Gradual weight bearing, Follow up to one year.

COMPLICATIONS

Complete healing (79%), Complete Necrosis (9%), Partial Necrosis (7%), Infection (5%)

THINGS TO BE TAKEN CARE

Wrong axis marking, not included deep fascia nor its sutured, Shearing movements rough handling, Kinking of flap, Tight suturing, No drain, No pressure dressing

FLAP MONITORING

Lowering of temperature, Flap shrinking, Discoloration, Blebs, Discharge, Dark blood on pinprick, Patient running temperature

CONCLUSIONS

Advantage – Easy To Raise, No Special Training Needed, Reliable, covers both for Acute & Chronic Wounds, Easy Post Op Care.

Disadvantage – Not For Larger Defects, Donor Site Covered With SSG, Sometimes Two Staged Procedure, Maximum Can Reach Up to Mid Sole, Dog Ear Which Needs Correction If Needed

These flaps are most suited for moderate sized defects. Inclusion of sub fascial plexus is the key in flap dissection. Post op dressing and wound care is important as they are traumatic/infective wounds with contamination. In my cases follow up chronic wounds responded well than acute wounds in terms of bone healing as well.

REFERENCES

- 1) McCarthy General Principles Vol. 1 275 – 377.
- 2) Cormack Gc 2nd Edition Arterial Anatomy Of Skin Flaps.
- 3) Bhattacharya Fasciocutaneous Flaps.
- 4) Hallock GG Evaluation of Perforators.
- 5) Giunta RE Doppler In Perforator Location.