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RESEARCH ARTICLE

MANAGEMENT OF MULTIPLE FOURTH DEGREE BURNS IN ELECTRIC BURNS PATIENT WITH LOCAL AND REGIONAL FLAPS-AN ALTERNATE TO FREE TISSUE TRANSFER

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Abstract

Introduction:-

Management of multiple electric burn wounds is a challenging task .with ongoing thrombosis and with progressive necrosis covering of defects with flaps is difficult ..but with adequate hydration, anticoagulant,antibiotic coverage v have managed with multiple regional flaps in alternate to free flaps.

Case Report:

37/m admitted with delayed presentation PBD 8 of 30%electric burns..patient had entry wound over scalp and exit wounds over both lower limbs.

PBD 9 debridement done over scalp and both lower limbs.on PBD 12 scalp transposition flap ..flap was healthy except for a residual defect of 5*5 cm over frontal region for which drill holes placed.. subsequently grafted after formation of granulation tissue

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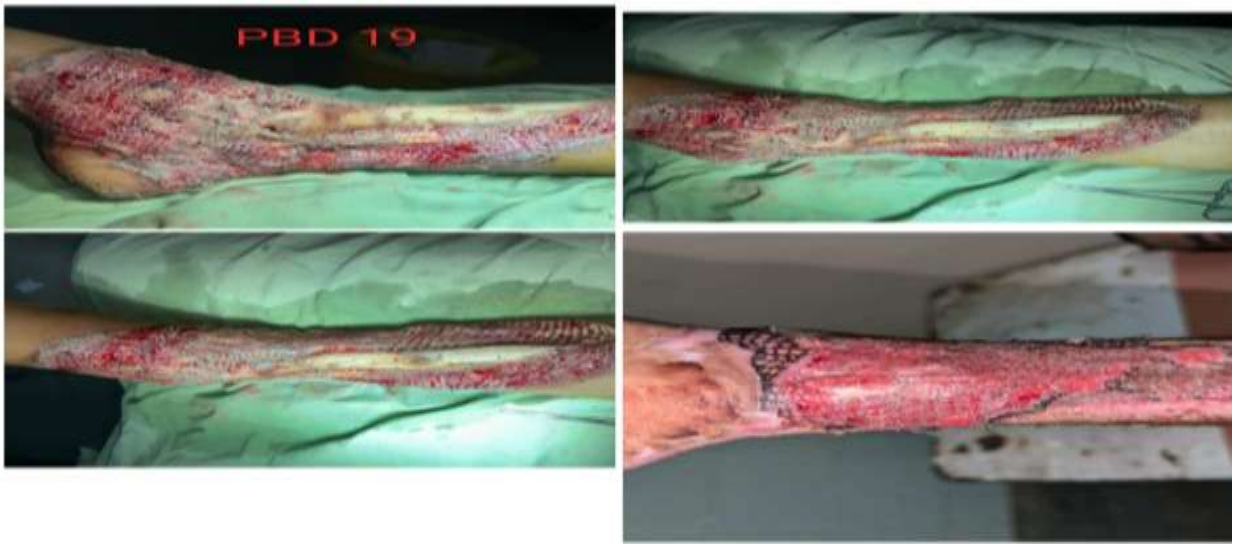
The goals of lowerlimb reconstruction include vascularized soft tissue coverage, acceptable cosmetic appearance, and minimal donor site morbidity

Reconstructive options for lower limb defects include local and regional flaps or free tissue transfer.

Local flaps have the advantage of good reliability, low donor site morbidity, good color match, and a relatively short operative time.

Several techniques to close a defect in the lower limb using local tissue



For post electric burn defect over rt lower limb of 13*5 cm flap cover done in 2 stages
.for upper part posterior tibial artery perforator based fascio cutaneous flap
and lower part of defect PTA perforator based cross leg flap done .
external fixators applied

The use of a local scalp transposition flap for reconstruction of scalp defects that are not amenable to skin graft or simpler methods of tissue rearrangement.

The main utility of this flap is for defects that have the pericranium removed and exposed bone.

This flap uses the robust vascularity of the scalp in that it can be oriented in any direction relative to the defect.

Once the scalp flap is rotated into the defect, the donor site, which has the pericranium preserved, is covered with a skin graft"

Free tissue transfer is believed to be a cornerstone for the reconstruction of the distal lower leg tissue loss as it allows three-dimensional reconstruction in a single operation. However, these flaps have some limitations such as major vessel sacrifice, extended time of operation,and morbidities of the donor sites.

In addition, free flaps need specialized surgical skills, sophisticated equipment, more than one team of surgeons and advanced postoperative monitoring.

Moreover, the patients and/or their guardians who had to undergo this surgery refused free tissue transfer because of the associated hazards

Results:-

In 30%electric burns with multiple fourth degree burns – multiple regional flaps are used like scalp transposition flap,posterior perforator based fasciocutaneous flap ,cross leg flap,withssg over raw areas..in alternate to free tissue transfer electric burn wounds were managed with regional flaps with good functional outcome .from being bedridden to walking independently patient was managed with satisfactory outcome.