

FACIAL BURNS: PROBLEMS AND MANAGEMENT

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SUMMARY

Facial burn injuries in majority of cases result in cosmetic disfigurement and functional disability. Careful assessment, judiciously planned treatment, executed with skill and expediency, minimise such sequelae. Experience of managing one hundred and four cases of facial burns are presented. The importance of conservative regime in burns of first degree and well tried reconstructive procedures for second and third degree burns needs to be appreciated.

One third of all burn injuries involve the face. These injuries in majority of cases result in cosmetic disfigurement and functional disablement, the former always outweighs the latter. Depigmentation and hypertrophic scars are frequent sequelae.

Material and Methods

One hundred and four cases of facial burns have been treated during the last 10 years at Command Hospital, Calcutta. 77 of these were due to thermal burns while 15 were due to chemical burns. Associated thermal burns with electrical injury was responsible in another 12 cases for facial burns.

Majority of the patients were young kids below ten years or young adults (Table I). The severity of the facial burns sustained in these cases has been depicted in Table II and the sequelae of burns in Table III.

Table I

Age Group	No. of cases
0—10 years	32
11—20 years	18
21—30 years	31
31—40 years	12
41—50 years	11

Table II

Superficial Burns	17
Superficial partial thickness skin burns	36
Deep partial thickness skin burns	35
Full thickness skin burns	16

Table III

Hypertrophic scars	66
Depigmentation of facial skin	22
Deformed eyelids	30
Deformed ears	14
Ectropion of lips	34
Microstoma	8

Treatment

The patient with first degree burns were managed conservatively by providing coverage with placental membrane after the topical application of antibiotics. (Fig. 1 & 2)

The management of the 2nd and 3rd degree burn was carried out in stages as under:

- A. Acute stage:
 - (a) Pregrafting phase.
 - (b) Skin grafting.
- B. Chronic stage:
 - (a) Waiting phase.
 - (b) Early reconstructive phase.
 - (c) Late reconstructive phase.

In the pregrafting phase, measures were taken for prevention of destruction of the surviving epithelial islands by daily debridement during tubbing in Hubbard's tank, saline com-



Fig. 1. Grossly infected burn wound of the face in a 6 year old child.



Fig. 2. The result after conservative regime in the same child.

presses and application of topical antimicrobial agents. By these measures a healthy granulating bed was achieved and coverage by split thickness skin graft was done at the earliest opportunity both for second and third degree burns.

Full thickness skin involvement of the eyelids was treated by release incisions in needy cases to correct the ectropion. Split skin graft coverage of the defect was carried out besides temporary tarsorrhaphy as recommended by Constable, 1970 and Converse 1977.

Suppurative chondritis and cellulitis of the auricle (Fig. 3, 4 & 5) were treated by incision, drainage and local instillation of antibiotics

(Apfelberg, 1974). Skin loss was corrected by split skin grafts at the earliest opportunity (Grant, 1969).

After a waiting phase of 6 to 9 months for the maturity of the wound scar, planned reconstructive procedures were undertaken to correct the residual deformity and disfigurement (Converse, 1977).

Observation

Management of the first degree burn of the face by placental membrane coverage after the application of topical antibiotics has given rewarding results in this series. There has not been any residual disfigurement in any of the



Fig. 3. Mixed second and third degree burns of the face with chondritis Rt. ear in an 18 year old patient.

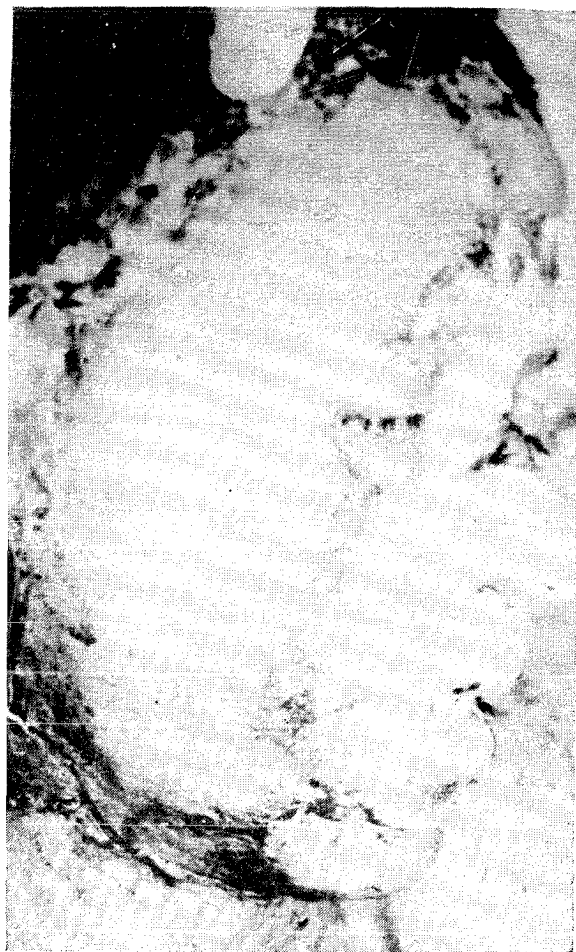


Fig. 4. Showing the appearance immediately after skin grafting.

cases treated.

Immediate diagnosis of the depth of the burn in burnt face is difficult, for this reason early excision and grafting can not be done. Initial conservative regime is to be instituted to prepare the affected areas for a good skin graft take and split skin graft coverage at the earliest opportunity should be done to prevent contractures and avoid unnecessary scarring. Orthoplast splint face masks were used to minimise scarring wherever necessary for a period of 6-9 months.

Serial excision of the depigmented patches was the choice of treatment and gave good cosmetic results. Hyper-pigmentation of the graf-

ted skin in third degree burns and wrinkling of the graft in the submental region was not an infrequent phenomenon and remained an uncorrectable sequelae.

Residual hypertrophic scars (after use of orthoplast splints) responded well with intralesional triamcnenolone acetonide, as has also been the experience of Griffith, 1974. No exposure keratitis occurred in this series. Curling of the helix of the affected ears was minimal because of the use of elastic net dressings.

Conclusion

Face represents and reflects the personality of an individual. Burn of the face with its resul-



Fig. 5. Showing the final result after 1 year.

tant deformities and disfigurements produce a telling effect on the psychology of an individual. Judicious management of these cases by conservative method in burns of first degree and well tried reconstructive procedures for second and third degree burns enable the reconstructive surgeon to achieve rewarding results to himself, to the patient and to the society.

REFERENCES

1. ACHARYA, S. K.: Blepharoplasty by Flaps. *Indian Journal of Plastic Surg.* 1982; 15: 37.
2. APFELBERG, D. B., WAISHREN, B. S., MASTERS, F. W. and ROBINSON, D. W.: Treatment of chondritis in the burnt ear by the local instillation of antibiotics. *Plast. Reconst. Surg.* 1974; 53: 179.
3. CONSTABLE, J. D., and CARROLL, J. M.: The emergency treatment of the exposed cornea in thermal burns. *Plast. Reconst. Surg.* 1970; 46: 309.
4. CONVERSE, J. M.: Burn deformities of the face and neck. *Surg. Clin. North Amer.* 1967; 47: 523.
5. CONVERSE, J. M.: *Reconstructive plastic surgery (facial burns)*. W.B. Saunders Company, 1977; 1595-1614.
6. GRANT, D. A., FINLEY, M. D., and COERS, C. R.: Early management of the burnt ear. *Plast. Reconst. Surg.* 1969; 44: 161.

7. GRIFFITH, B. H., MONROE, C. W. and MERENNEY, P.: A follow-up study on the treatment of keloids with triamcinolone acetonide. *Plast. Reconst. Surg.* 1974; 53: 410.

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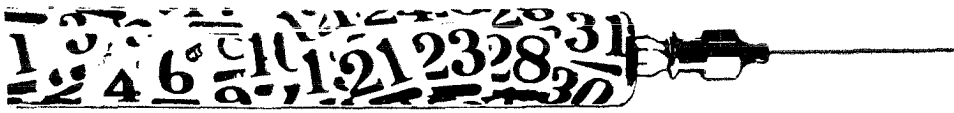
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