İstanbul 2010
EUROPEAN CAPITAL OF CULTURE

16th MBC MEETING

TURKEY - ISTANBUL

March 31-April 3 , 2010

Mediterranean Council for Burns & Fire Disasters
WHO Collaborating Center

MBC

International Association for Humanitarian Medicine
Brock Chisholm

IAHM

with special endorsement by

Turkish Society of Plastic Reconstructive
and
Aesthetic Surgery

&

Turkish Society of Burn Management
and
Prevention

YANIK DERNEĞİ 2009

EBA

P - 05

[Accepted:Poster Presentation] [Clinical]

Negative pressure dressing in the treatment of skull necrosis due to electrical burn

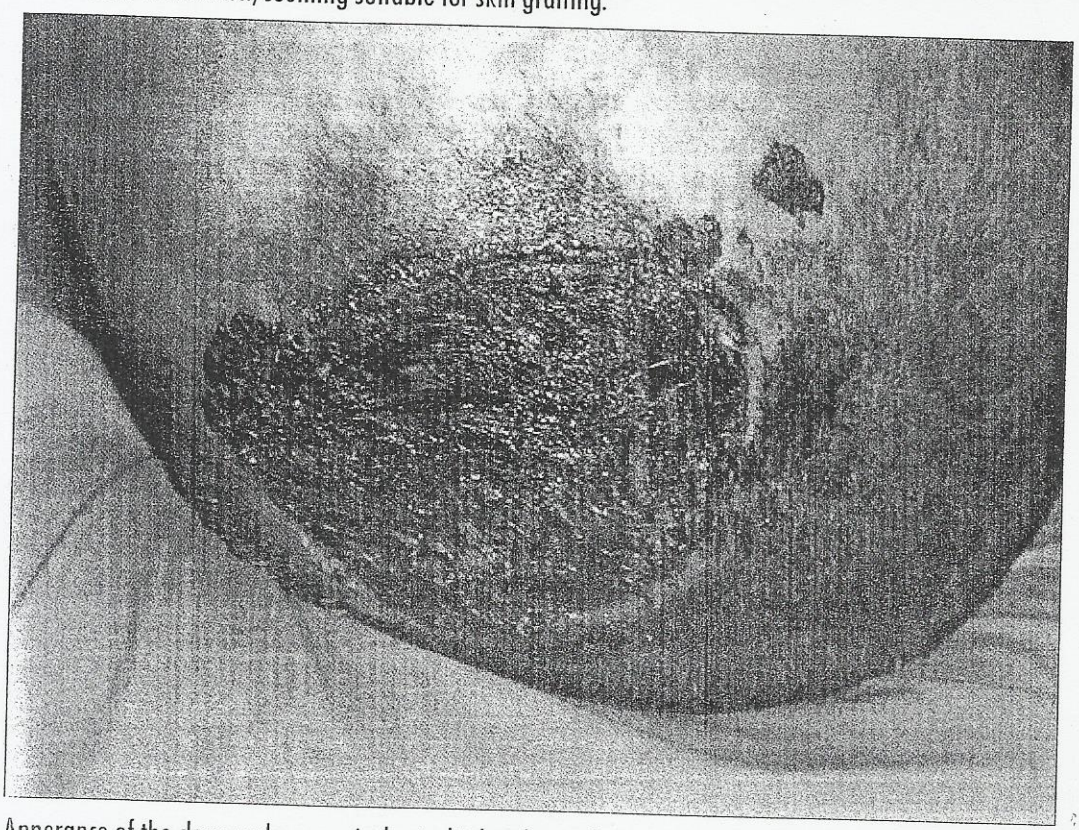
Nazım Gümüş

Department of Aesthetic, Plastic and Reconstructive Surgery, Adana Numune Research and Training Hospital, Adana, Turkey

BACKGROUND: Deep burns of the scalp and skull due to high-voltage electrical current present serious therapeutic challences in early and late stages of the healing. In this study, in the treatment of burned skull, negative pressure dressing is used to facilitate separation of the necrotic bones from viable cranium and to develop granulation tissue formation after trephanation of the bone.

METHODS: A 36 year-old male patient who had seriously injured his head with high-voltage electrical current was presented. On the fifth day after injury, necrosis of the scalp, became clearly significant with the permenant loss of blood perfusion, so extensive debridement was necessary. Under general anesthesia, the whole necrosis of the scalp was removed, leaving the calvarial bone exposed. While devitalized calvaria was preserved in place, exposed bone was drilled. Then a vacuum-assisted dressing was applied to the wound, and set to 125 mm Hg continuous pressure. Cranial wound covered with vacuum-assisted dressing was followed carefully with daily examination for any signs of infection or other local complications.

RESULTS: Some granulation tissue developed in the holes and margins of the wound within 32 days, but it was not sufficient to allow successful closure of the wound with skin grafting. Therefore, for the debridement of the necrotic layers of the skull, the patient underwent another operation in which devitalized outer table of the skull was easly seperated from viable bone by using a little force to remove. When elevated the necrotic outer table, profuse granulation tissue appeared clearly over the inner table of the skull, seeming suitable for skin grafting.



Apperance of the deep scalp necrosis due to high-voltage electrical injury.