

SEVERE BURN: MANAGEMENT IN A YOUNG PATIENT CAUSED BY BURNING ARC

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INTRODUCTION

Burns are skin lesions caused by direct or indirect action of heat and the main causes are the direct flame contact with boiling water or hot fluids, contact with the heated surface, the electrical current and also by chemical agents.

Despite the recent advances in the treatment of big burned, the burn is still a public health problem, particularly in countries with low economic status. In Brazil we have the trauma burn corresponding to 57% of total mortality in the range 0-19 years. Moreover, it can cause physical and psychological sequelae reducing the productive potential of economic and social point of view of affected individuals.

Early and effective treatment contributes to a better prognosis, and the dermatologist or other physician are important to provide the service correctly.

This study aims to report a case of a young big burned patient by burning arc in the Burn Treatment Unit of João XXIII Hospital-FHEMIG - Belo Horizonte - MG, with emphasis on dermatological aspects - clinical and surgical therapy approach.

CASE REPORT

MVSC, male, 15, was admitted with burn arc voltaic after electrical accident. He presented burns 2nd and 3rd degrees in 50% of the body surface (face, neck, trunk, arms and legs). Received fluid resuscitation, blood transfusion, clinical support and intensive care. He was underwent surgical treatment by the team of plastic surgery: 04 surgical debridement and 4 partial skin grafts during hospitalization. He was attended daily by nursing staff for bathing and dressing with silver sulfadiazine. Received systemic antibiotic for treatment of associated infections and pre-debridement antibiotic prophylaxis.

The response to the hospital treatment was satisfactory, with significant improvement of skin lesions. Outpatient treatment was indicated.

After six months of burning, showed necrosis of the grafts and was temporarily hospitalized for carrying out the 5th grafting skin.

After seven months of burning, he showed good attachment of the grafts and is with several hypertrophic scars the body, including're losing cervical mobility and upper limbs. It is doing physical therapy to prevent the loss of mobility.



Fig 1: One day after the first debridement



Fig 2: Immediate postoperative period of the second graft.



Fig 3: Patient after successful graft



Fig 4: After seven months of sunburn, skin hypertrophic scars and skin retraction.

DISCUSSION

The types of treatment depend on the degree of burn wound. The patient mentioned above showed superficial 2nd degree burn, deep 2nd degree and third degree. The deep 2nd degree presents restore the 3 week period with a tendency to healing hypertrophic scars, contractures and ulcerations. The usual treatment is tangential excision and skin grafting. In the case of 3rd degree burns, treatment involves escharotomy, debridement and grafting rotation flaps for plastic surgery team and special dressings, skin substitutes dermal regeneration matrices.

Regarding the surgical approach, the early closure of full thickness wounds improved the outcome of extensive burns, by preventing the colonization and infection of the wound.

On-site treatment non-surgical, are used topical agents for effective pain control, limiting fluid losses and direct antimicrobial action. It is universally accepted application of silver sulfadiazine applying in the first 48-72 hours and aiming to prevent infection.

The clinical case exemplifies a major burn case that required a prompt and appropriate initial treatment, an aggressive surgical treatment, intensive care support, daily dressings and multidisciplinary approach. This undoubtedly contributed to the final prognosis. Hence the importance of all physicians, including dermatologists, to be able to provide medical care, even if initial, the burn victim.

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Conflict of Interest: None.

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