

EARLY SURGICAL INTERVENTION FOR A PATIENT WITH A SEVERE ELECTRIC BURN OF THE SKULL

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Introduction :

Early radical surgical treatment is proposed to achieve wound closure in a patient with a severe electric burn of the skull with osteonecrosis. The objective was to remove the necrosis without causing primary brain lesions, enabling early revascularization of the affected area to allow for grafting.

Method :

A high voltage electric shock caused a third degree burn to the frontoparietal region of the patients' head (Fig. 1).

After 24 hours he was transferred to our burn center. X-Rays and tomography (Fig. 2 and Fig. 3) revealed the presence of osteonecrosis. On the third day after burn injury radical necrotomy was performed (Fig. 4), followed by the closure of the wound with a skin flap (Fig. 5).

Results :

Wound closure was achieved within 14 days, after which the patient was discharged from the hospital without local, general nor cerebral complications (Fig. 6 and Fig. 7).

At the one month follow up visit the patient is fully recovered and his hair is growing back hiding most of his scars (Fig. 9 and Fig. 10).

Conclusion :

- The results obtained indicate that early surgical treatment using vascularized flaps prevents bone destruction and contributes to the restoration of bone structure enabling wound closure.



Fig 1: Third degree burn

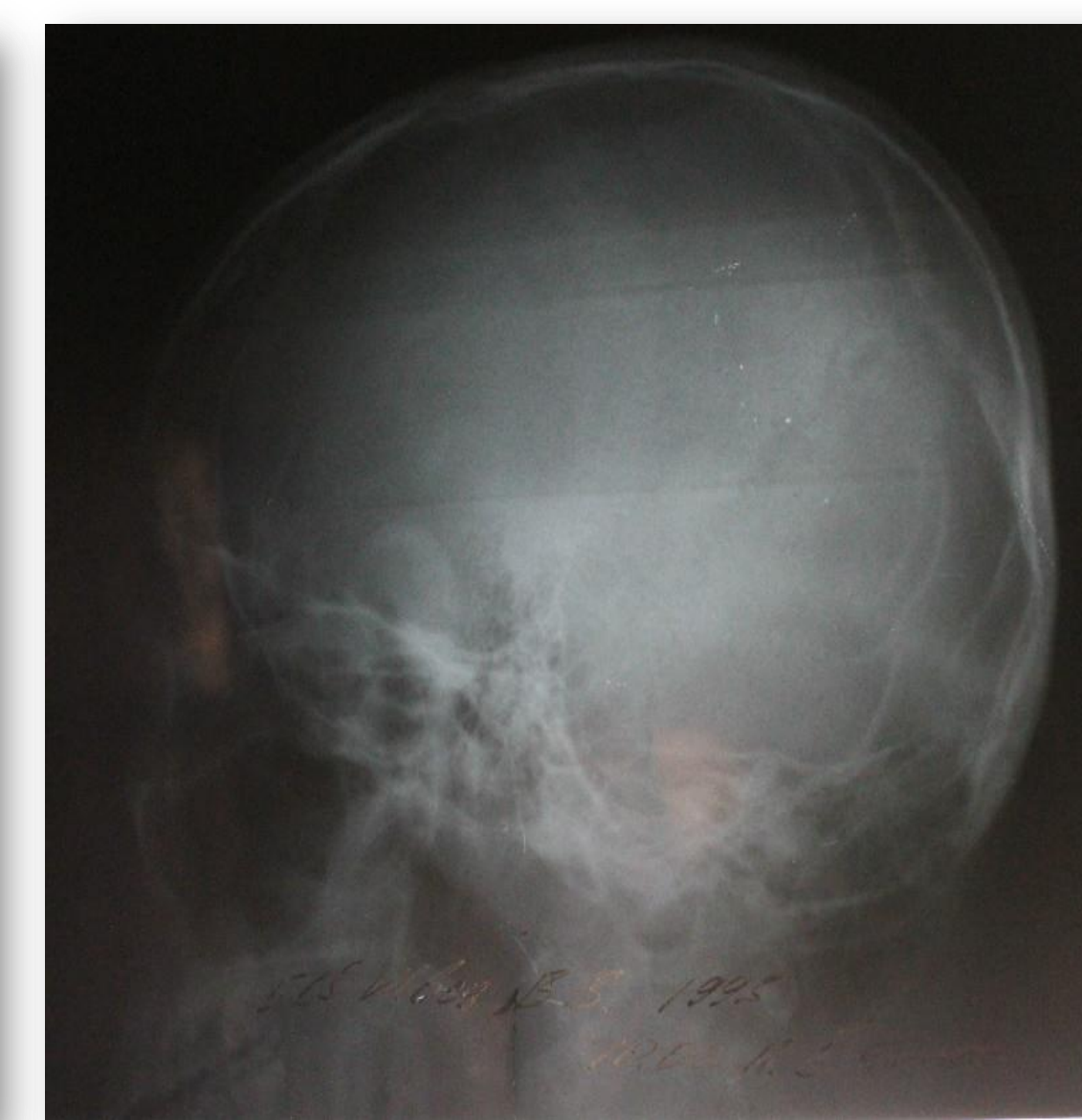


Fig 2: X-ray of the skull

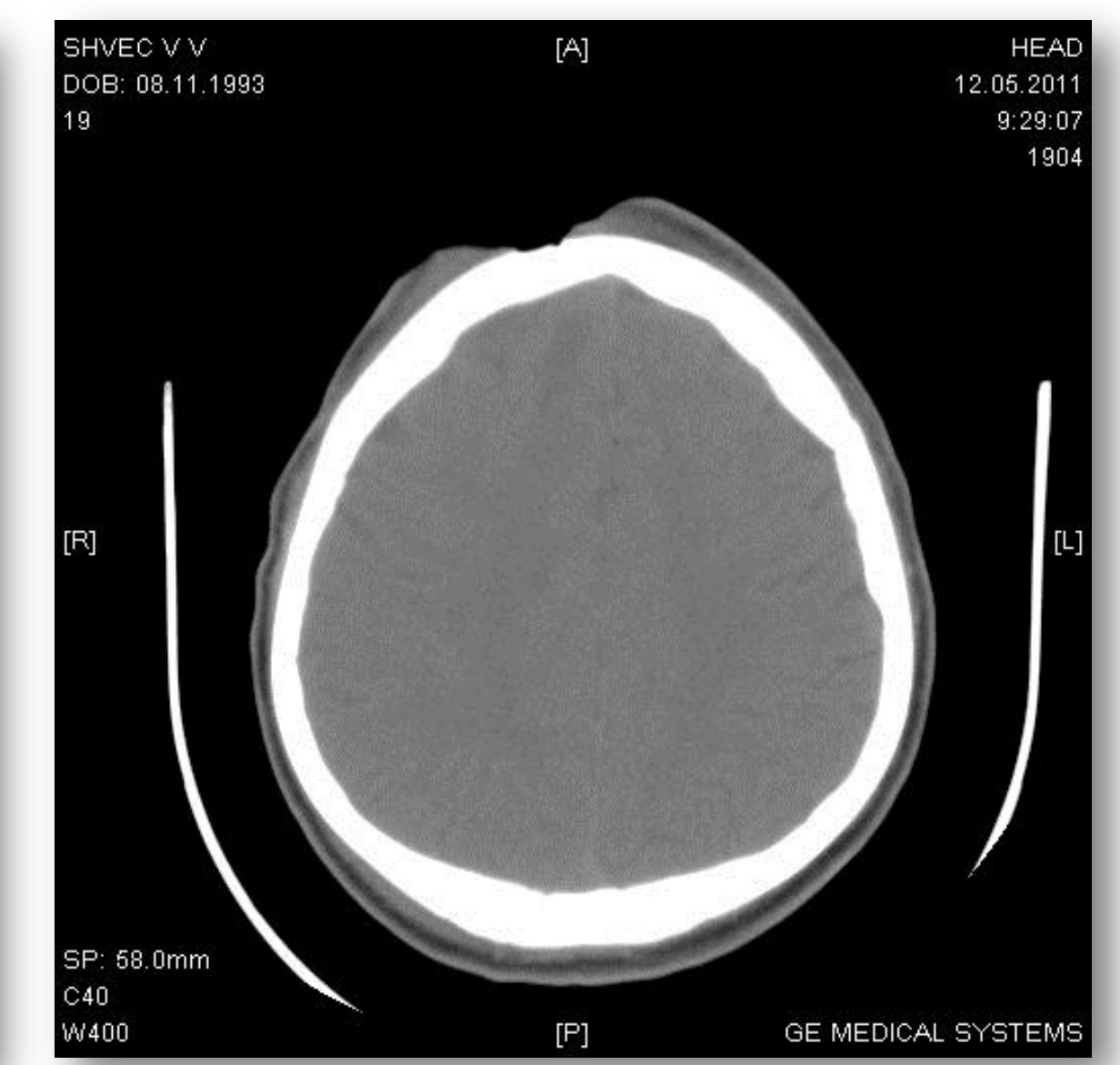


Fig 3: Tomography



Fig 4: Radical debridement



Fig 5: Closure with skin flaps



Fig 6: Wound closure is achieved in 14 days



Fig 7: Wound closure



Fig 8: X-ray after 14 days



Fig 9: Result at 4 weeks



Fig 10: At 4 weeks