

FREE REPLANTATION OF TOTAL AVULSED SCALP- A CASE REPORT

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Abstract

We present the case of a 38-year-old female who came to our Clinic 5 hours after injury with scalp avulsion due to entanglement of head scarf in the motorized machine with a good final result after which the patient can use a wig. During the treatment, hyperbaric oxygen therapy was applied, after which we had a dilemma about the benefits of using it.

Key words: injury, scalp, replantation, surgery

Case report

We present the case of a 38-year-old female who was admitted 5 to our Clinic hours after injury with scalp avulsion due to entanglement of her long hair in a roller machine. The patient was brought in relatively good general condition, with vital parameters within normal range. Standard examinations were performed, including CT of the head, which did not reveal any additional injuries. The scalp was amputated from 1 cm above the eyebrows, above the auricles at temporal region, up to the neck (complete avulsion of the hairy part), and in depth to the periosteum. By microsurgical examination of the amputated part, performed by injecting fluid into the identified blood vessels, multiple injuries were determined, due to which replantation was not possible (Figure 1.). Nevertheless, we decided to put the amputated part back in place by using staplers. To our surprise, postoperatively, by the fifteenth day there were no signs of infection, nor pronounced signs of ischemia and necrosis. On the fifteenth day, minimal signs of ischemia and necrosis appeared, so we decided to treat the patient with hyperbaric oxygen therapy. After five days of therapy, using pressure of two atmospheres, there was a sharp deterioration of the condition with acceleration of the process of ischemia and necrosis, so the therapy was interrupted. Since there were no signs of rejection of the amputation, we decided on further conservative dressing



Fig. 1. Course of treatment



Fig. 2. Course of treatment

therapy for three months, after which, due to the clear demarcation of necrotic zones of the dermis without separation from the periosteum, we started debridement. Necrosis was limited to the level of the dermis with a complete loss of hair follicles. Aponeurosis was completely accepted, with partial anemic granulations and colonization with gentamicin - sensitive staphylococci. The necrectomy was not

completed until five months later, as was the local treatment of the infection. After the sixth month, a skin transplant from the femoral region of the Thierche type was performed twice, with a good final result after which the patient can use a wig (Figure 2).

Avulsion injuries are one of the traumatic injuries which are difficult to reconstruct. Reports in the literature about scalp replantation are mostly sporadic; rarely can one find a large series. Various authors have documented their experience [1-8]. In the case we present, although no microsurgical replantation was performed, we are satisfied that the aponeurosis and part of the soft tissues were accepted, which created a good basis for further interventions. After the application of hyperbaric oxygen therapy during the treatment, we had a dilemma about the benefits of using it.

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