SUCCESSFUL USE OF INTEGRA® IN MULTIMODAL TREATMENT OF EXTENSIVE HYPERGRANULATIONS IN A 14-YEAR-OLD POLYTRAUMA FEMALE PATIENT AFTER ELECTRICAL BURNS

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OBJECTIVES.

A 14-year-old female patient was admitted to our ward six months after being treated in another health facility. The patient was injured by electrical arch of 25 000 V and sustained 3rd degree burns affecting 50 percent of TBSA as well as a spleen rupture due to a fall from the height. Urgent splenectomy was performed. Extensive infected hypergranulations in the perineal region, back and lower extremity caused delayed healing.
(foto 1-3)

METHODS.

This problem required a multimodal approach. After meticulous debridement of hypergranulations and wound conditioning, Integra® was applied in the lower extremity and perineal region. The patient was closely monitored for signs of bacterial infection so nine days after surgery a silicon layer of Integra® had to be removed. STSG meshed graft 1:1.5 was applied after removal of silicon layer and wound conditioning. Skin grafting was repeated in the areas that had not been successfully grafted, with additional usage of PRF (Platelet-rich fibrin) and CEA (Culture epithelial autograft).
(foto 4-9)

RESULTS.

Preoperative wound conditioning and simultaneous use of antibiotics allowed a successful use of Integra® in spite of multiresistant Pseudomonas aeruginosa colonization. After 70 days of treatment at our ward, complete epithelization was achieved. Restoration of anatomy and function, with significant improvement in the range of motion of involved joints, was achieved in a relatively short period of time.
(foto od 10-14).

CONCLUSION.

The beneficial effect of Integra® was possible because the biological response of the young patient was so quick that the dermis was restored in only 9 days and the injured lower extremity was similar to the other in both volume and shape. Simultaneous application of different methods, including proper nutritional support, speeded up the healing time.

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