FIRST EXPERIENCE WITH THE USE OF NEXOBRID IN DEEP BURNS OF THE SCALP (151)

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Introduction: Burns of the scalp, although infrequent, involve an anatomic region that is not simple to treat for evident technical and aesthetic reasons. These injuries are often associated with facial burns (with possible involvement of the respiratory tract) or part of extensive body surface area burns. Traditional procedures of early surgical debridement are not always easily accomplished on the scalp. Indeed, this is not a primary area for escharectomy, especially in cases of very large burns. Furthermore, in order to achieve better hair growth it is important to preserve as much dermis as possible by using selective debridement. Waiting until full demarcation will cause maximal burn propagation and loss of precious dermis. Selective surgical debridement is challenging but can be performed by using dermabrasion or hydrosurgery. These methods, however, inevitably require general anaesthesia. In addition to that, the patient must be placed on an operating table in prone position, and be prepared for blood loss. With the recent availability of NexoBrid (NXB), these problems can be easily overcome. It can be used immediately on deep burns as a bedside procedure, and it achieves full selective debridement exposing viable tissue in only a four hour application. Its benefits are obvious:

- Does not require general anaesthesia, only mild analgesia;
- Can be performed at the patient’s bedside, no need to schedule an operating room;
- Blood loss is very limited, even in a highly vascularised area such as the scalp;
- Debridement is ultra selective, preserving dermis and its appendages allowing greater spontaneous healing with less need for autografting;
- Early wound cleansing reduces the risk of local infectious complications;
- Thicker dermal layer heals faster and with better hair growth,

Methods: At our Burn Centre we had the opportunity to treat an elderly patient (aged 89) with a deep scalp flame burn (2% TBSA). The patient’s clinical conditions and advanced age were an important risk factor for traditional surgery under general anaesthesia. The morning after admission, after mechanically wiping and removing most of the blisters (AmukineMed 0.05%) the patient was treatment with NXB. The wound was surrounded with a containment barrier for the NXB gel; the barrier was made with non-adherent gauze (Adaptic). 5 grams of NXB gel were prepared and applied on the necrotic area with a sterile wooden spatula. The wound was then covered with sterile polyurethane film with adhesive borders on intact skin. A few layers of sterile gauze bandage were placed and a mild compressive dressing was applied. After about four hours, the occlusive dressing was removed and the remains of NXB mixed with the dissolved eschar were wiped away with a wooden spatula.

Results: The eschar had mostly been eliminated, and deep, clean and well perfused dermal tissue was exposed. The entire treated area was then cleansed with saline solution and covered with 2 sheets of AquacelAg. The next day, the AquacelAg dressing was perfectly adherent to the wound, no local complications were seen and, therefore, the dressing was left in place. The patient, in good general condition, was discharged home. No further local complications were observed during the subsequent outpatient controls, and the wound completely re-epithelialised in about two weeks.
Conclusion: The use of previously unreported NXB enzymatic debridement on a scalp burn, was effective, selective, convenient, simple, and resulted in reduction of hospitalization time.