WOUND HEALING

THE USE OF HUMAN SKIN ALLOGENIC GRAFTS IN HARD-TO-HEAL WOUNDS: AN INTEGRATED CLINICO-SURGICAL TREATMENT.

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Introduction: Hard-to-heal wounds, both of a traumatic, pressure, vascular, neuropathic or surgical nature, represent a growing public health problem.

Objective: To report our experience with a 3-step integrated treatment based on wound debridement followed by wound bed preparation (i.e., negative pressure wound therapy) and then grafting with skin allogenic grafts.

Materials and methods: We treated with this approach a total of 60 patients with hard-to heal wounds of the lower limb (25), abdomen (2), oral cavity (20), scalp (5) and neck (8). Skin allografts were realized with bio-products of the Skin Bank of Siena including: skin and de-epidermized dermis. Wounds were classified according to the depth of substance loss (limited/critical) and duration (acute/chronic). Wound closure time, pain assessment and exudation levels were monitored.

Results: Complete re-epithelization was achieved in 63.38 days ± 31.43 (average±ds); range 30-130 days. Acute-presenting wounds required 32.66 ± 22.62 days, while chronic-presenting wounds required 71 ± 31 days. Limited hard to heal wound required 39.37 ± 14.86, whereas deep critical HHW 78.22 ± 32days. Pain at baseline was 8.38 ± 1, 6 ± 1 at first allograft dressing change, 4.5 ± 1.2 at second, 2.83 ± 1.28 at third and 0.19 at final allograft change. Exudate amount at baseline before phase 1 of debridement / WNPT was 2.66, reduced to 2.1 at first, to 1.7 at second, 1.2 at third and 1 at final allograft dressing change.

Conclusions: According to our experience, the integrated 3-step clinic-surgical treatment with skin allograft represents a valid therapeutic option for critical wounds. Acting as a

physiological biological dressing and scaffold, skin allografts can control local pain, stimulate a neo-constituted dermis production (rather than scarring), reduce of the total healing time, improvement of the quality of patient's life and reduction of health costs of local medications with dermo-epidermal equivalents.