

A PROSPECTIVE OBSERVATIONAL STUDY ABOUT THE PERFORMANCE OF A POLYACRYLATE-SUPERABSORBER SATURATED WITH RINGER SOLUTION FOR THE TREATMENT OF SUPERFICIAL AND PARTIAL TO FULL THICKNESS BURNS

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Aim: Burns are acute wounds that depending on the time of exposure, mechanism of injury and body surface area affected lead to different local and systemic responses. Treatment of these injuries should include the evaluation of the causes of tissue damage, ensuring tissue perfusion, promoting debridement of necrotic tissue, bacterial control and exudate management. This multicentre prospective observational study aims to evaluate the effects of a polyacrylate-superabsorber saturated with Ringer solution in burn patients.

Methods: Twenty patients with acute burn wounds received treatment with the polyacrylate during a maximum of 2 weeks. Percentage of body surface area burned was evaluated at the first treatment and condition of the wound, pain, presence of infection and need for surgery were assessed every dressing change.

Results: In two patients with chemical burns it was observed almost a complete removal of the necrotic tissue after 2-5 days with a reduction of the inflammation. In one patient, where only half of the leg was treated with the polyacrylate and the other half with silver sulfadiazine (SSD), was notorious the difference between tissues with the area treated with SSD showing only necrotic tissue and the area treated with the polyacrylate showing signs of granulation and a decrease of the inflammation. All of the patients mentioned a decrease of pain during the treatment and a relief when the dressing was applied. A decrease of the local inflammatory response was visible in all of the patients. Only three patients required surgery in the operation theatre to remove the remaining necrotic tissue. There were no reports of infection.

Conclusions: The polyacrylate-superabsorber saturated with Ringer's solution is an effective choice to treat burn wounds, helping to remove necrotic tissue and decreasing pain. The apparent anti-inflammatory properties of this dressing need to be further studied.