
Topical Doxepin Cream is Effective in Relieving Severe Pruritus Caused by Burn Injury: A Preliminary Study

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Abstract: We studied the effect of a potent topical histamine H1 and H2 receptor blocker, doxepin, on severe burn wound pruritus. We compared the response of doxepin cream in 20 patients with healed itching burn wounds, using the standard of care, which included oral antihistamines, skin moisturizers, and sedatives. The patients (all outpatients) were first assessed as to the degree of itching using the 0 to 10 pain scale with an initial assessment and a take-home chart for a seven-day period after which all patients were placed on the topical doxepin alone, and a daily pruritus assessment was made for seven days. At the end of the doxepin-treatment period, wounds were assessed, after which the previous standard of care was resumed. The degree of pruritus decreased significantly with the use of doxepin cream, decreasing from a value of 7 ± 2 on standard care to a value of 3 ± 1 with the doxepin cream. The response was noted within 15 minutes, and no tachyphylaxis was noted. We also noted a significant decrease in wound erythema. Some somnolence was noted in 20 percent of patients, which decreased with two to three days of doxepin use. The degree of itching and degree of wound erythema returned to pre-doxepin levels with a return to standard care therapy. We concluded that a topical doxepin cream is effective in decreasing wound pruritus in burn patients with results superior to oral antihistamines, skin moisturizers, and sedatives.

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Supplement: Pruritus and Burn Wounds

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Abstract: Survivors of burn injury often experience severe pruritus that affects their quality of life post discharge. Antihistamines and moisturizing lotions are the mainstay of therapy for post-burn itch, but these agents provide effective relief of itch for only a minority of survivors. With the increase in patient survival now achieved by improvements in care, and the prevalence of less severe burns, the need to improve the quality of life of burn survivors through better control of wound itch has become a defined goal for care givers. Here we discuss therapeutic modalities tested for relief of post-burn itch, including the novel agent, topical doxepin cream. Results demonstrating that topical doxepin cream is superior to oral antihistamines and skin moisturizers appear to identify it as an alternative to standard of care for severe pruritus after burn injury.

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Topical Doxepin Significantly Decreases Itching and Erythema in the Healed Burn Wound

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Abstract: Severe itching accompanied by erythema in the healed burn wound is a common and incapacitating problem for burn patients. Itching is most common in partial-thickness wounds that require about three weeks to heal. Increased release of histamine from local wound mast cells and/or increased sensitivity of sensory nerves to local histamine release are considered major causative factors. The current standard approach for itch, which consists of oral antihistamines, skin moisturizers, and sedatives, is often ineffective. Doxepin is a tricyclic compound found to have extremely potent antihistamine properties. A five-percent doxepin cream is used to control the histamine-induced itch of atopic dermatitis, urticaria, and other pruritic skin disorders. The purpose of this study was to test the efficacy of doxepin cream in controlling post-burn itch in outpatients with healed, itching, burn wounds compared to a more standard care. The study was continued over a three-month period or until the itch ceased. A 0-to-10 itch scale (10 being the worst) and a 0-to-3 erythema scale (3 being the worst) were used in this randomized prospective trial. The authors found that itch and erythema, which were 5 ± 2 and 2 ± 1 , respectively, with standard care decreased significantly to 2 ± 1 and 1 ± 0.5 , respectively, with the doxepin cream for the length of the study

period. Itching ceased in 50 percent of the patients using doxepin cream before the three-month period compared to only 10 percent using the oral antihistamines. Mild and transient somnolence was seen in 15 percent of the patients using the doxepin cream compared to 80 percent of the patients using standard care. The authors concluded that the five-percent doxepin cream significantly decreases itching and erythema in the healed burn wound compared to oral antihistamines. Preliminary results of this study were published in WOUNDS 2001;13(6):210–15.

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Topical Doxepin Significantly Decreases Itching and Erythema in the Chronically Pruritic Burn Scar

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Abstract: The chronically pruritic burn wound is an incapacitating problem. Itching, which can last months to years, is most common in a burn that required three to four weeks to heal. The incidence of chronic itch in burn scars has been reported to be up to 80 percent of patients. Chronic inflammation is likely present in a wound still itching beyond four months. Increased release of histamine from local wound mast cells and/or increased sensitivity of sensory nerves to local histamine release is considered a major causative factor. The current standard approach for chronic itch, which consists of oral antihistamines, skin moisturizers, and sedatives, is often ineffective. Doxepin is a tricyclic compound found to have extremely potent antihistamine properties. A five-percent doxepin cream is used to control the histamine-induced itch of atopic dermatitis, urticaria, and other pruritic skin disorders, including more acute burn wounds. The authors' purpose was to test the efficacy of doxepin cream in controlling post-burn itch in outpatients with healed chronically itching burn wounds of four months to one year in duration. Patients were randomized into a standard of care group using oral antihistamines or the use of topical doxepin. The study was continued over a three-month period or until the itch ceased. A 0-to-10 itch scale, 10 being the worst and a 0-to-3 erythema scale, 3 being the worst, were used in this randomized prospective trial. The authors found that itch and erythema were 5 ± 2 and 2 ± 1 , respectively, with standard care; values were significantly decreased to 2 ± 1 and 1 ± 1 , respectively, with the doxepin cream compared to standard care, for the length of the study period. Itching ceased in 75 percent of patients using doxepin cream before the end of the three-month period compared to only 20 percent of patients using the oral antihistamines. Mild and transient somnolence was seen in 10 percent of patients using the doxepin cream, compared to 50 percent of patients using standard care. The authors concluded that the five-percent doxepin cream

significantly decreases itching and erythema in the healed, chronically itching, burn wound compared to oral antihistamines.

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