Clinical effectiveness of silver alginate dressing in outpatient management of partial-thickness burns

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A prospective descriptive study

Background and objective
The purpose of this study was to compare the efficacy of Askina® Calgitrol® Ag and 1% silver sulfadiazine (1% AgSD) in the outpatient management of partial-thickness burn wounds at Burn Unit, Siriraj Hospital. A prospective descriptive study was conducted between January 2008 and January 2009 in Burn Unit, Division of Trauma Surgery, Siriraj Hospital, Mahidol University, Thailand.

Method – study design
The 65 patients with partial-thickness burn wounds, less than 24 hours post-burn injury, had a total body surface area (TBSA %) less than 15 % were treated at Siriraj Outpatient Burn Clinic. All patients were divided into Askina® Calgitrol® Ag treated group (30 patients) and 1 % AgSD treated group (35 patients). The data were compared by the demographics including age, gender, % TBSA burn, pain score, number of wound dressing change, nursing time and time of wound healing. Patients included in both groups were comparable with no significant differences in demographic data of age, gender, location of burn and type of burn injury (P > 0.05 evaluated by paired Student’s t-test) between both groups.

Results
The present results showed that average pain scores in the Askina® Calgitrol® Ag treated group were significantly lower than the 1% AgSD treated group (2.23 ± 1.87 versus 6.08 ± 2.33, respectively) between both groups (P < 0.02). Patients treated with Askina® Calgitrol® Ag had significantly lower number of wound dressing change (P < 0.02) and nursing time (P < 0.02) compared with 1% AgSD treated group. The Askina® Calgitrol® Ag group needed less frequent wound dressing. Healing time was 7 ± 3.51 days after the application of Askina® Calgitrol® Ag. This was significantly shorter than that of control wounds (14 ± 4.18 days).

Conclusion
The results suggest that Askina® Calgitrol® Ag significantly decreases the level of pain, the frequency of dressing changes and the healing time compared with 1% AgSD treated group. The presented data suggest that Askina® Calgitrol® Ag is an effective dressing managing the partial-thickness burn wounds at the outpatient clinic.