



FIGURE 1. Topical timolol had a higher visual analog scale (VAS) score compared to control (saline) (scored from poor to excellent).



FIGURE 2. Wounds treated with topical timolol (A) had a more cosmetically favorable result compared to control (B).

then every 1 to 2 weeks for wound assessment and measurement until their wounds had healed or at 13 weeks, depending on which came first. A healed wound was defined as having no exudate, exhibiting complete reepithelialization, and being stable for 1 week.

Healed wounds were assessed by a blinded outside dermatologist who examined photographs of the wounds and then completed the VAS for each participant's scar.

Results

A total of 9 participants were enrolled in the study. Three participants were lost to follow-up; 6 completed the study (4 females; 2 males). The mean age was 70 years (range, 46–89 years). The average wound size was 2×2 cm with a depth of 1 mm. Three participants were in the active medication group and 3 were in the control group.

A VAS was completed for each participant's scar by an outside blinded dermatologist. Based on the VAS, wounds treated with timolol resulted in more cosmetically favorable scars (scored higher on the VAS) compared to control (mean [SD]: 6.5 [0.9] vs 2.5 [0.7]; $P < .05$). See Figures 1 and 2 for representative results.

Comment

Dermatologists create acute wounds in patients on a daily basis. Ensuring that patients achieve the most desirable cosmetic outcome is a primary goal for dermatologists and an important component of patient satisfaction. A number of studies have examined patient satisfaction following MMS.^{3,4} Patient satisfaction is an especially important outcome measure in dermatology, as dermatologic diseases affect cosmetic appearance and are related to quality of life.^{3,4}

Timolol is a nonselective β -adrenergic receptor antagonist that is used in dermatology to treat IHs. In this preliminary study, the authors sought to determine if topical timolol applied to acute wounds following surgical removal of nonmelanoma skin cancers could improve the overall cosmetic outcome of acute surgical scars. The results showed that compared to control, topical timolol resulted in a more cosmetically favorable scar. The results are preliminary, and it would be of future interest to further study the effects of topical timolol on acute surgical wounds from a wound-healing standpoint as well as to further test its effects on the cosmesis of these wounds.

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