Medical PEMF Studies

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Innovative Cellular Healing

WOUND HEALING

Efficacy of pulsed electromagnetic energy in postoperative recovery from blepharoplasty.

1. Dermatol Surg. 2012 Mar;38(3):445-50. doi: 10.1111/j.1524-4725.2011.02215.x. Epub 2011 Nov 14.

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Comment in

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Dermatol Surg. 2012 Mar;38(3):451-3.

BACKGROUND: A novel medical device that has been approved by the Food and Drug Administration is available for treatment of postsurgical edema. The device emits a low-level, pulsed electromagnetic energy field, which modulates resting cell membrane potential, allowing a return to physiologic resting membrane potential.

OBJECTIVE: To investigate the benefits of electromagnetic energy in eyelid wound healing.

METHODS: Fifty-seven individuals participated in this randomized, double-blinded study. All patients underwent upper blepharoplasty. At the postoperative visit, patients rated pain, edema, and ecchymosis, and the physician rated edema, ecchymosis, and erythema.

RESULTS: There was no difference (p = .76) in patient pain rating when comparing placebo (1.6) with the patch (1.3). Patients reported 6% less edema (p = .11) and 10% less ecchymosis (p = .17) with the active patch eye than in control eye. The physician-graded edema, ecchymosis, and erythema had a mean Likert-type scale difference between placebo and active eyes of -0.3 (p = .12), -0.3 (p = .17), and -0.2 (p = .004) respectively.

CONCLUSION: The use of pulsed electromagnetic energy did not have an effect on postoperative pain, edema, or ecchymosis as rated by patients and physicians. There was a statistically significant reduction in physician-graded erythema for active patch eyes versus placebo.

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