

New Approaches in Keloids and Hypertrophic Scar Management

Mohammad Javad Fatemi ¹

1. Professor of Plastic and Reconstructive Surgery, Department of Plastic Surgery, Burn Research Center, St. Fateme Hospital, Iran University of Medical Sciences, Tehran, Iran

Corresponding Author: Mohammad Javad Fatemi, E-mail: mjfatemi@gmail.com

ABSTRACT

Keloids and hypertrophic scars are a challenging problem in plastic and reconstructive surgery. These abnormal processes are benign fibrous overgrowths of scar tissue, which results from an abnormal response to trauma. Several therapeutic modalities have been described for the treatment and prevention of these conditions that includes pressure and silicon therapy, steroid injection and surgery, but the optimal management approach has not yet been defined. This article reviews the most recent, innovative, therapeutic strategies for the management of hypertrophic scars and keloids, including Bleomycin, 5-FU, mitomycin-C, tamoxifen citrate, methotrexate, imidazolaquinolines, retinoids, calcineurin inhibitors, phenylakylamine calcium channel blockers, botulinum toxin, vascular endothelial growth factor inhibitors, hepatocyte growth factor, basic fibroblast growth factor, interleukin-10, manosa-6-phosphate, transforming growth factor beta, antihistamines, and prostaglandin E2.