

6th International Conference on

WOUND CARE, DERMATOLOGY AND ORTHOPEDICS

December 05-06, 2022 | Dubai, UAE

Received date: 01.11.2022 | Accepted date: 15.11.2022 | Published date: 10-01-2023

Intralesional cryosurgery for the treatment of hypertrophic scars and keloids – An evidence based new and novel technology

Yaron Har-Shai

Carmel Medical Center, Israel

A novel cryoneedle (CryoShape, Life by Ice Ltd, Israel; approved by the FDA and Israel Ministry of Health) was inserted into the core of the hypertrophic scar and keloid (HSK). It was connected to a liquid nitrogen canister, which causes the cryoprobe to freeze thereby freezing the core of the HSK from the inside out.

This technology has been applied on patients suffering from HSK following: trauma, surgery, burns, piercing, acne and other. The scars were evaluated for volume reduction. Objective (hardness and color) and subjective clinical symptoms (pain/tenderness and itchiness/discomfort) were documented pre- and post- cryosurgery.

Pre- and post-treatment biopsies were taken for histomorphometric studies for collagen structure. Surface thermal behavior was measured by thermocouples. A significant long hold time was recognized. The histomorphometric analysis demonstrated collagen rejuvenation of the treated scars. Minimal post- cryosurgery hypopigmentation was documented.

For ear HSK, scar volume reduction of 70% has been achieved following a single cryo-session. On the chest 60% and upper back and shoulders 65%. 3% of scars did not respond. During the follow-up period significant alleviation of objective and subjective clinical symptoms was achieved. No worsening or infection of the HSK was noticed and only minimal hypopigmentation was documented. This simple to operate technology can be applied as an office procedure, is safe, cost-effective and possesses a short learning curve.

Recent Publications

1. Har-Shai Y, Har-Shai L, Zouboulis VA, Zouboulis CC. Different Types of Auricular Keloids and Treatment by Intralesional Cryosurgery: Best Practice for Obtaining Long-Lasting Clinical

Results. *Dermatology*. 7:1-10, 2021.

2. Zouboulis CC, Wild T, Zouboulis VA, Har-Shai Y. Intralesional cryosurgery of keloids: Required treatment hold time. *Br J Dermatol*. 184:173-175, 2021.
3. Har-Shai L, Kreichman R, Kedar R, Osovsky M, Chen R, Lavi I, Metanes I, Segal M, Sar-El O, Mattar S, Hassan S, Kramer A, Bryzgalin L, Ad-El D, Sagi-Dain L, Lavie O, Har-Shai Y. Risk factors associated with accidental fetal skin lacerations during cesarean delivery, *International Journal of Gynecology and Obstetrics*, Published online June 2, 2022: ijgo.14273.

Biography

Yaron Har-Shai is a qualified plastic surgeon since 1992 and the director of the plastic surgery departments at Carmel and Linn Medical Centers at Haifa. Har-Shai is a graduate of the Ruth and Bruce Rappaport Faculty of Medicine, Technion- Israel Institute of Technology and is an active faculty staff member. At 2013 he was nominated as a clinical professor of plastic surgery at the Faculty of Medicine. To date Har-Shai is the vice dean for strategic development at the Bruce Rappaport Faculty of Medicine and the holder of the David Erlik Chair for surgery. Following his plastic and reconstructive surgery residency at Rambam Medical Center, Haifa, he had participated and attended many professional fellowships in the USA, Canada and Europe in the fields of facial aesthetic surgery, microsurgery, craniofacial and reconstructive surgery etc. Har-Shai is a past president of the Israel Society for Plastic Surgery and a corresponding member of the American and European Societies of Plastic Surgery. He has developed many innovative surgical procedures and published more than 100 original articles in basic sciences and clinical research, in addition to chapters in high quality textbooks, in the field of plastic, reconstructive and aesthetic surgery. Har-Shai was awarded prestigious prizes by the Israel Society for Plastic Surgery (Kaplan Prize and the President award), the Faculty of Medicine (distinguished lecturer), the European Tissue Repair Society and the International Society of Cryosurgery award for excellence for his achievements in the treatment of hypertrophic scars and keloids. Many of his articles are cited in the international medical literature and his innovations are applied in many medical centers around the world.

e: yaron07@yahoo.com