



The Efficacy of Combined Poly-L-Lactic Acid (Sculptra) Injections and 4D Multi-Polar RF and Pulsed Magnetic Fields (Venus Legacy) on the Appearance of Inner Arm Wrinkles

Purpose:

The combined effects of the aging process and environmental insults cause skin to become thin, dry, and patchy in color. Older skin loses its elasticity, sags, and develops wrinkles and deep folds. For this reason collagen replacement is the goal of many anti-aging treatments.¹

Poly-L-Lactic Acid (PLLA) is a soft-tissue injectable bio-stimulatory agent approved for the treatment of wrinkles that acts by stimulating the skin to produce collagen.^{2,3} Radiofrequency (RF) is another method of treating wrinkles and it works to uniformly heat the skin for immediate heat-related skin shrinkage and subsequent long term collagen production and skin tightening.^{4,5,6}

In clinical practice, we have been combining PLLA and RF treatments to give a synergistic improvement in skin tightening and wrinkle reduction. The ability of the PLLA to augment the skin through collagen production should be enhanced by RF treatments that also have a collagen stimulatory and skin tightening effect. Overall, the appearance of wrinkles and skin texture is synergistically improved by combining multiple collagen producing therapies in succession.

Design:

One vial of PLLA was prepared by adding 6 cc of Bacteriostatic 0.9% Sodium Chloride 72 hours prior to planned injections. On the day of planned injections, an additional 2 cc of 2% Lidocaine HCL and 1 cc of Lidocaine 2% with 1:100,000 Epinephrine was added to the vial. This 9 cc mixture was removed from the PLLA vial and added to a separate bottle of Bacteriostatic 0.9% Sodium Chloride that had 23 cc removed and discarded (7 cc remaining). The total mixture was a dilution of 16 cc/vial. Microcannula (25 g, 2 in on a 3 cc Luer-Lock Syringe) injections along the inner area of each arm were performed till 1 vial was completely infiltrated. Massage for 5 minutes was performed post-procedure and continued 5 times a day, for 5 minutes, for 5 days.

Starting the following day, RF treatments began using a 4D Multi-Polar device with pulsed magnetic fields weekly for a total of 6 sessions (Octipolar Handpiece, 20 minutes treatment each arm).

Results summary:

Anecdotally, improved results with the combination of PLLA and RF treatments are seen for wrinkles on the inner arms. It has been reported that hyaluronic acid (HA) injection plus RF treatment was more effective at reducing deep wrinkles than HA alone.⁵ Solely, each treatment has been shown to improve wrinkles and tighten skin, but the synergy of each gives an enhanced improvement.

Conclusion

Combination therapy with PLLA and a 4D Multi-Polar RF device with Pulsed Magnetic Fields give excellent improvement in the appearance of wrinkles on the inner arms. The combination synergistically promotes collagen synthesis and subsequently improves wrinkling. Studies are needed to validate this combination approach for the improvement of skin wrinkles and tightening.

References:

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