



Scarless Enhanced Body Contouring

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Abstract

Background

A helium-based plasma device with minimal invasiveness selectively heats tissues via joule heating, ensuring safe external temperatures and eliminating the need to monitor the epidermal temperature.

Methods

From December 2022 to January 2024, Forty-six patients without prior bariatric surgery, who had localized lipodystrophy and mild-to-moderate skin laxity in various body areas, were enrolled in this prospective work. Liposuction was paired with a helium-based plasma radiofrequency device used for all patients.

Data on demographics and postoperative complications were disclosed. A patient evaluation was conducted objectively and subjectively, using an independent plastic surgeon assessment and a patient satisfaction survey, respectively.

Results

Our technique was performed on 40 females (87%) and six males (13%), in various body areas: arm (fourteen cases: 30.4%), neck (ten: 21.7%), thigh (nine: 19.6%), abdomen (seven: 15.2%), back (three: 6.5%), gynecomastia (three: 6.5%), their age ranges from 23 to 57 years, and their body mass index (BMI) ranges from 24 to 34.6 kg/m². Patients' satisfaction at 6 months after surgery was 82.6% (38) satisfied, 15.2% (7) borderline, and 2.2% (1) unsatisfied. Individual plastic surgeon evaluation was 69.6% (32) excellent, 28.3% (13) good, and 2.1% (1) fair. The overall complications rates were postoperative edema in 22 cases (47.8%), ecchymosis in 11 cases (23.9%), persistent skin laxity in one case (11.1%), mild seroma in three cases (6.5%), pain and tingling in six cases (13%), and mild subcutaneous emphysema in four cases (8.7%).

Conclusions

Combined liposuction and helium-based plasma radiofrequency device usage are a safe, efficient, and minimally invasive substitute for excisional procedures in non-bariatric patients with localized lipodystrophy and mild-to-moderate skin laxity.

- *The Renuvion® APR Handpiece is intended for the delivery of radiofrequency energy and/or helium plasma where coagulation/contraction of soft tissue is needed. Soft tissue includes subcutaneous tissue.*
- *The Renuvion APR Handpiece is intended for the coagulation of subcutaneous soft tissues following liposuction for aesthetic body contouring.*
- *The Renuvion APR Handpiece is indicated for use in subcutaneous dermatological and aesthetic procedures to improve the appearance of lax (loose) skin in the neck and submental region.*
- *The Renuvion APR Handpiece is intended for the delivery of radiofrequency energy and/or helium plasma for cutting, coagulation and ablation of soft tissue during open surgical procedures.*
- *The Renuvion APR Handpiece is intended to be used with compatible electrosurgical generators owned by Apyx Medical.*