

Microdermabrasion Devices with a New Positive Pressure Salt (NaCl) Microdermabrasion Device”

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This study of 23 photoaged females, skin types I-V, was a randomized split face clinical trial with blinded grading. A new positive pressure salt microdermabrasion device (Salt A-Peel™, Med-Aesthetic Solutions, Inc) was compared with two leading negative pressure aluminum oxide devices. All three devices were used with comparable techniques and the same operators at parameters selected to achieve maximal possible clinical results with each device without producing skin abrasions. A total of six treatments were performed at weekly intervals.

Analysis included digital and 35mm photography, diaries, colormeter, pathology, elasticity, profilometry, TEWL, pain grading and moisture analysis. Results demonstrated the positive pressure salt system to be the most effective at removing the stratum corneum and also to be superior to the other devices in improvement in skin smoothness, skin roughness, and wrinkle reduction as measured by profilometry. The positive pressure device also showed the greatest improvement in skin elasticity.

Of the two negative pressure devices, the “physician model” fared somewhat better than the “esthetician model” in overall clinical results. The discomfort of the positive pressure device was rated similar to the physician model negative pressure device, and both of these were rated as being slightly more uncomfortable than the esthetician device. Patient satisfaction was greatest with the positive pressure device.



Microdermabrasion Comparison

Top: Pre-treatment
Bottom: Post-treatment

Sodium Chloride

Top: Pre-treatment
Bottom: Post-treatment

Aluminum Oxide