Background: Acne scars and Striae are one of the most difficult disorders to treat in aesthetic dermatology. Radiofrequency (RF) is non-ionizing electromagnetic radiation used in medicine for nearly 100 years. In contrast to most lasers that target specific chromophores, RF is chromophore-independent and has deeper penetration to the dermis and hypodermis as compared to light based technologies. The use of RF devices for skin resurfacing has similar efficacy however with less downtime, pain and adverse effects, especially when treating dark skin types. The latest generation of multisource RF systems which use six independent RF generators simultaneously, have been shown to provide deeper penetration with less surface heating and discomfort. The Fractional Skin Resurfacing (FSR) technology provides unique ability to treat the epidermis and dermis simultaneously; fractional micro-ablation for skin texture at the epidermal layer and significant volumetric heating up to 2.9mm for collagen remodeling at the dermal layer.

Objective: To investigate the safety and efficacy of the FSR technology on skin type 4 & 5 for treating Acne scars and Striae.

Study Design & Methods: 15 patients enrolled in this study. All subjects were treated with the FSR procedure. Treatment areas were cheeks, forehead, arms and abdomen. RF energy was delivered at levels of 3-5 watts with exposure time of 20-40 msec. Protocol includes 4-5 treatments with one month interval. All patients were photographed before each treatment.

Results: Some of the patients had reported pain during the treatments. No adverse events were reported during and after the treatments. B&A photos show improvement in acne scars, striae and skin texture.
Conclusions: The current study evaluates the efficacy and safety of a FSR treatment. The evaluated indications were acne scars, striae and skin texture and the findings show that the treatments are safe and effective with high satisfaction rate.