

## Intralesional Radiofrequency for Papular Acne Scars

Papular acne scars are skin-colored, minimally raised, 3–4 mm discrete, cobblestone-like papules most commonly present on back, nose, and chin. These are exophytic in nature and produce a cobblestone-like appearance and show a poor response to systemic therapy such as antibiotics and isotretinoin. Different invasive modalities such as subcision, punch elevation, punch excision, and laser therapies have been tried for treating these scars. Normal radiofrequency (RF) ablation of even superficial lesions such as papular acne scars can lead to scarring and pigmentation. Intralesional RF (ILRF) targets only the deeper reticular dermis, thus minimizing the scarring of the epidermal tissue.

ILRF technique has been widely used in the treatment of different types of skin lesions.<sup>[1]</sup> We have performed the ILRF ablation in some patients of papular acne scars [Figure 1]. A small window is created at the proximal end of plastic sheath of intravenous (IV) cannula (22G, blue). The tip of cannula is inserted into the center of the papule. Depth of the tip depends on the size of lesion. Electric current is passed from RF probe to IV cannula by touching the tip of probe to the cannula through the window created [Figure 2]. The plastic sheath provides insulation and prevents damage to the skin at the entry point. The heating and damage of dermal and subdermal tissues causes vertical breakdown of fibrotic scars. ILRF targets only the deeper reticular dermis, thus minimizing the scarring of the epidermal tissue. In this patient [Figure 1], initially we had done the normal RF ablation on two lesions, which left the scar. The remaining lesions were then done by



Figure 1: Papular acne scars on chin (before the procedure)



Figure 2: ILRF of papular acne scars. The tip of the probe is touching the cannula at the window created



Figure 3: Significant improvement in the scars post three sittings of ILRF

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ILRF, which gave a better cosmetic appearance with minimal scarring.

As a new technique ILRF was found to be minimally invasive and a safe way of treating papular acne scars, which is effective, inexpensive with a higher degree of precision [Figure 3].

## Reference

1. Subhadarshani S, Gupta V, Taneja N, Yadav S, Gupta S. Efficacy and safety of a novel method of insulated intralesional radiofrequency ablation for deep dermal and subcutaneous lesions: A 3-year institutional experience. *Dermatol Surg* 2018;44:714-20.