INTRODUCTION: Keloids and hypertrophic scars are the results of a derailed normal wound-healing process. Regular wound healing consists of three phases: inflammation, proliferation, and remodelling. A dysfunction in one of these phases can lead either to a keloid or a hypertrophic scar. None of the available therapeutic options for the treatment have been found to be completely effective and satisfactory. Radiofrequency tissue volume reduction (RFTVR) is a surgical technique that induces extensive fibrosis in the treated tissues. Because of its mechanism of action, it was considered as a suitable modality for the treatment.

OBJECTIVE: The aim of this study was to assess the clinical safety and efficacy of radiofrequency (RF) in keloid and hypertrophic scar.

MATERIALS AND METHODS: This study included 25 patients who were suffering from keloids. All patients were subjected to 5 sessions of RF one week apart. Assessment of the scar volume and both objective and subjective parameters were performed before and after completion of the sessions.

RESULTS: The study showed an overall volume reduction of 53.05 %. There was a significant reduction of keloid pliability, height, and erythema compared with baseline. Patients reported a significant reduction in their subjective symptoms compared with baseline. Some of the patients mentioned about pain after the procedure, none of the patients reported about infection or bleeding after the RF procedure. In some of the patients, post-procedure side effects were observed as post-treatment pain in 7, blistering in 3, ulceration in 2 and no side effect in 13.

CONCLUSION: Radiofrequency tissue volume reduction is an effective treatment modality for keloids. It is an easy procedure with the acceptable cosmetic outcome and less rate of recurrence.