Title: Evaluation of combined microneedling with 15% Trichloroacetic acid (TCA) versus microneedling with 5% minoxidil in the treatment of Alopecia areata in men

Abstract

Background: Alopecia areata is an autoimmune condition characterized by patchy, non-scarring hair loss.

Objective: was to evaluate the effectiveness of microneedling with 15% trichloroacetic acid (TCA) versus microneedling with 5% minoxidil in the treatment of alopecia areata in men.

Patients and methods: Forty male patients with localized patches of alopecia areata were divided into two groups: Group A (n = 20) treated with microneedling combined with trichloroacetic acid (15%) and Group B (n = 20) treated with microneedling combined with minoxidil 5%. All patients received one session per month for 3 months, and follow-up was conducted for 3 months after treatment. Clinical assessment of patients was performed using the SALT score, and evaluation was done for dermoscopic features before and after treatment.

Results: All patients showed improvement in SALT scores following treatment. Group A demonstrated a mean SALT reduction from 9.24 to 2.39, reaching 74.10% improvement, while Group B decreased from 7.64 to 2.16, achieving 71.77% improvement. Dermoscopic examination showed yellow dots, black dots, and an exclamation mark, with a significant reduction in both groups after treatment. At the same time, vellus hair increased in both groups after treatment. No significant adverse effects were detected in either group.

:Conclusion

Alopecia areata can be effectively treated with microneedling in combination with 15% trichloroacetic acid, yielding nearly similar results to those achieved with microneedling combined with 5% minoxidil.

Keywords: alopecia areata, minoxidil, microneedling, trichloroacetic acid, dermoscope

Introduction

Alopecia areata (AA) is a prevalent autoimmune