

## Successful Management of Post-Laser Hyperpigmented Scar with Intralesional Tranexamic Acid Injections

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### Case Presentation

A fifty-two-year-old woman, Fitzpatrick skin type IV, presented with a hyperpigmented scar on the face. The patient had a history of a linear depressed scar on the left cheek, previously treated with the fractional CO<sub>2</sub> laser, which was complicated by post-treatment hyperpigmentation. The aesthetic appearance of the hyperpigmented scar (Figure 1A) affected considerably the patient social life, more than her initial depressed scar. A dermatological examination revealed a hyperpigmented macular lesion in the area treated with laser therapy. A dermoscopic examination revealed an exaggerated pigment network associated with some telangiectasia. The lesion was treated with two intradermal tranexamic acid injections, diluted to 10% (10 mg/mL), with an interval of three weeks. At each session, we injected a total of 1 ml of product. After the two sessions, we observed a considerable clinical improvement with the total disappearance

of hyperpigmentation, achieving good patient satisfaction (Figure 1B).

### Teaching Point

Hyperpigmentation is a possible complication of laser therapy, particularly in patients with Fitzpatrick skin types IV and V. The management of this complication is based on topical corticosteroids and depigmenting creams with variable effectiveness. The use of tranexamic acid to treat melasma, lichen planus pigmentosus, and post-inflammatory hyperpigmentation has shown encouraging results [1,2]. In our case, tranexamic acid was injected intradermally and was associated with a rapid and very satisfactory response. Therefore, further studies will clarify the role of intradermal tranexamic acid injections as a cheap and effective therapeutic alternative for the management of post-laser hyperpigmented scars.



**Figure 1.** (A) Post-laser hyperpigmented scar on the cheek. (B) Clinical picture 3 weeks after the second intradermal injection of tranexamic acid, showing almost complete disappearance of the post-laser hyperpigmented scar.

## References

1. Lindgren AL, Austin AH, Welsh KM. The Use of Tranexamic Acid to Prevent and Treat Post-Inflammatory Hyperpigmentation. *J Drugs Dermatol.* 2021;20(3):344-345. DOI:10.36849/JDD.5622. PMID: 33683077.
2. Chabchoub I, Litaïem N, Gara S, Bacha T, Jones M, Zeglaoui F. Efficacité de l'acide tranexamique dans le traitement des cicatrices postopératoires hyperpigmentées. *Annales de Dermatologie et de Vénérologie - FMC.* 2021;1(8, Supplement 1):A327-A328. DOI:10.1016/j.fander.2021.09.383.