

# Prevention of post-inflammatory hyperpigmentation in dark skin types after a non-ablative laser

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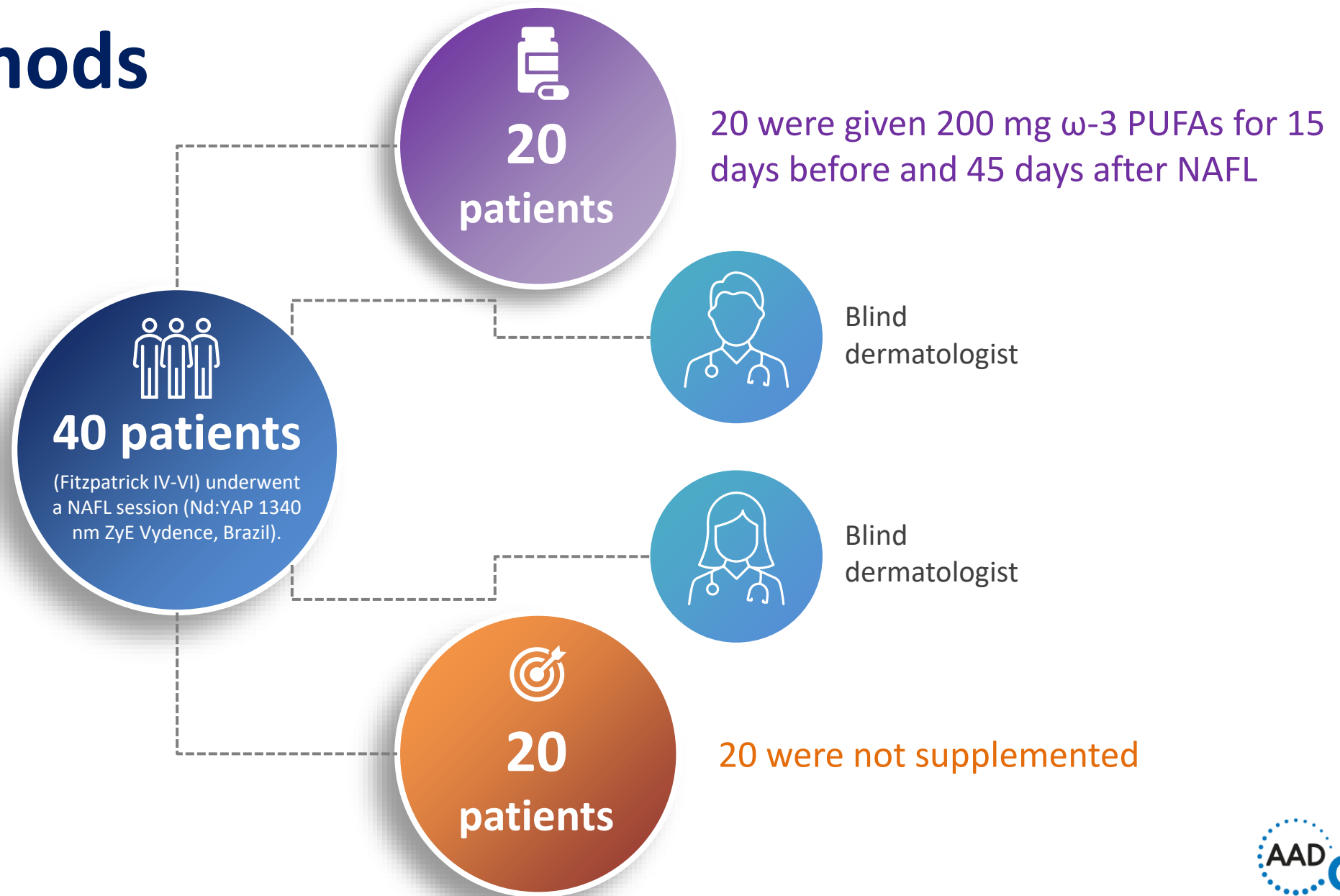
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# BACKGROUND

- Non-ablative fractional lasers (NAFL) are a well-known effective treatment for skin rejuvenation. However, the post-inflammatory hyperpigmentation (PIH) is an extremely common disorder of pigmentation in skin of color. It most frequently and severely affects phototypes that are rich in melanin and often has a chronic and unpredictable course. It presents significant treatment challenges and often requires a multi-factorial approach. The inflammatory conditions should be sought and treated as the first step to reduce the progression of inflammation and PIH (which is an inflammatory consequence). Supplementation of omega-3 polyunsaturated fatty acids ( $\omega$ -3 PUFAs), a caviar oil phospholipid, has been used successfully to reduce inflammatory processes, which could be beneficial for the management of PIH after laser session. This is the first study comparing incidences of PIH in dark skin after supplementation of  $\omega$ -3 PUFAs)
- **OBJECTIVES**  
To evaluate the influence of oral supplementation of  $\omega$ -3 PUFAs on the incidence of PIH in dark skin after NAFL.
- **METHODS**  
40 subjects (Fitzpatrick IV-V) underwent one NAFL session (Nd: YAP 1340 nm Zye Vydence, Brazil). Subjects were divided into two groups, 20 received 200 mg  $\omega$ -3 PUFAs, for 15 days before and 45 days after NAFL and 20 did not receive supplementation. The effects of treatment were evaluated by 2 blinded dermatologists.

# Methods



# Results

- The main side effect was PIH in 30% of the control group. There was no case of PIH in the intervention group. There was no significant difference in the results between the groups and no supplement-related adverse event was reported.

# Discussion and Conclusion

- Hyperpigmentation is one of the most common post-laser complications, especially in darker skin types. Supplementation with PUFAs  $\omega$ -3 has the potential to decrease inflammatory processes, which may be beneficial to manage post-laser PIH.
- The study showed that daily oral dosing with 200 mg Caviar phospholipids may be useful to prevent PIH in dark skin types after NAFL.
- The association of PUFAs  $\omega$ -3 maybe can provide better results after laser procedures as it allows more aggressive parameters

## REFERENCES



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