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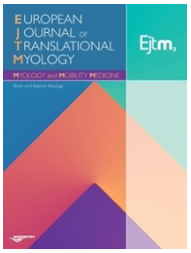

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OZOILE®: evaluating its impact and future applications in inflammatory dermatological treatments

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Dear Editor,

I would like to express my sincere appreciation for the publication and detailed discussion of therapies for dermatological and inflammatory conditions, as exemplified in the recent article "Onychocryptosis: a retrospective study of clinical aspects, inflammation treatment, and pain management using Ozoile as a hydrogel and cream formulation" by Vincenzo Francavilla *et al.* This insightful study has provided a comprehensive overview of the management of onychocryptosis, a common and often distressing condition, and has highlighted the innovative use of OZOILE® in a clinical setting.[1]

Ingrown toenails, also known as onychocryptosis, frequently cause significant pain and can severely impact the quality of life. Traditional treatment approaches often involve invasive procedures and can carry risks of complications. The introduction of OZOILE® as a therapeutic option represents a promising alternative. OZOILE® has demonstrated notable efficacy due to its proven antibacterial, antifungal, and anti-inflammatory properties. These qualities not only enhance patient comfort but also facilitate a faster recovery, minimizing pain and reducing the risk of adverse outcomes associated with conventional treatments.

Our own study have further supported the effectiveness of OZOILE® by showing its ability to lower crucial inflammatory markers such as IL-1β, TNF-α, and IFN-γ. This anti-inflammatory effect is significant because it contributes to improved tissue integrity and effective stimulation of the tissue repair process. By reducing inflammation and promoting

healing, OZOILE® offers a substantial advantage over traditional treatments that may not address the underlying inflammatory mechanisms as effectively.[2]

Moreover, OZOILE® has shown particular promise in treating Lichen Sclerosus (LS), a chronic inflammatory condition affecting the glans, penis, and foreskin, in pediatric patients. This condition is notoriously challenging to manage, and current treatment options often fall short in providing relief. The application of OZOILE® has yielded encouraging results in reducing symptoms and managing the disease. Studies have revealed that OZOILE® can effectively lower inflammatory markers associated with BXO, thus improving tissue integrity and aiding in the repair of damaged tissue. Positive indicators such as increased E-cadherin expression and decreased TG2 levels further substantiate the efficacy of ozone therapy in controlling inflammation and supporting tissue regeneration.[3]

The potential of OZOILE® extends beyond these specific conditions, suggesting that its benefits could be harnessed in other therapeutic contexts as well. The integration of OZOILE® into therapeutic protocols for conditions such as ingrown toenails and BXO could significantly enhance clinical outcomes and reduce complications associated with traditional treatments.[4] However, it is crucial that further large-scale randomized clinical trials are conducted to confirm the efficacy and safety of OZOILE® in these and other contexts.

Finally, we would like to congratulate Vincenzo Francavilla *et al.* for their insightful and forward-thinking work on this emerging and complex area of dermatological treatment. Their findings provide valuable guidance for clinical practice and highlight the importance of continued exploration of OZOILE®'s broader applications in various medical fields. As research progresses, it will be crucial to evaluate how OZOILE® can be effectively utilized in different therapeutic scenarios and whether it can be integrated into existing treatment protocols to enhance patient outcomes. Their commitment to focusing on a potentially transformative therapy is commendable, and their study offers useful insights for managing complex conditions such as ingrown toenails and balanitis xerotica obliterans, the latter of which has also been previously studied by us.

In conclusion, while the preliminary results are promising, ongoing research and clinical trials are essential to fully understand the potential of OZOILE® and its broader implications for medical practice. By advancing our knowledge and exploring new applications, we can unlock the full potential of this innovative therapy and enhance the quality of care for patients across a wide range of conditions.

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References

1. Francavilla V, Secolo G, D'Armetta M, et al. Onychocryptosis: a retrospective study of clinical aspects, inflammation treatment and pain management using Ozoile as a hydrogel and cream formulation. Eur J Transl Myol 2024;34:12487.

2. Currò M, Russo T, Ferlazzo N, et al. Anti-inflammatory and tissue regenerative effects of topical treatment with ozonated olive oil/vitamin E acetate in balanitis xerotica obliterans. Molecules 2018;23:645.

3. Bertuccio MP, Rizzo V, Arena S, et al. Ozoile reduces the LPS-induced inflammatory response in colonic epithelial cells and THP-1 monocytes. Curr Issues Mol Biol 2023;45:1333-48.

4. Russo T, Currò M, Ferlazzo N, et al. Stable ozonides with vitamin E acetate versus corticosteroid in the treatment of lichen sclerosus in foreskin: evaluation of effects on inflammation. Urol Int 2019;103:459-65.