

Long-Term Safety and Tolerability of a Physician-Formulated Hair Growth Supplement: A Retrospective Review of 508 Patients

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Introduction

Many patients self-prescribe over-the-counter hair supplements for extended periods of time without physician guidance. Multiple supplements have been shown to contain mega doses of ingredients like biotin, some of which can cause serious health concerns when taken in excessive doses. Given the FDA warnings regarding this, we wanted to assess a popular supplement that is commonly used amongst dermatologists.

Objective:

This study assesses the overall tolerability and the long-term safety of Inner Glow™ Advanced Hair, Skin & Nails supplement especially with respect to its impact on laboratory values, including liver function.

Methods

Study Design:

- Retrospective chart review of 508 patients at 4 dermatology practices, from July 2020 - Dec. 2024
- Assess LFTs and tolerability over 12-255 weeks of continuous Inner Glow™ use

Inclusion Criteria:

- Consistently taking Inner Glow™ as the only hair supplement
- Documentation of Inner Glow™ use at one or more follow ups with Dermatologist
- Patients were not pregnant

Results

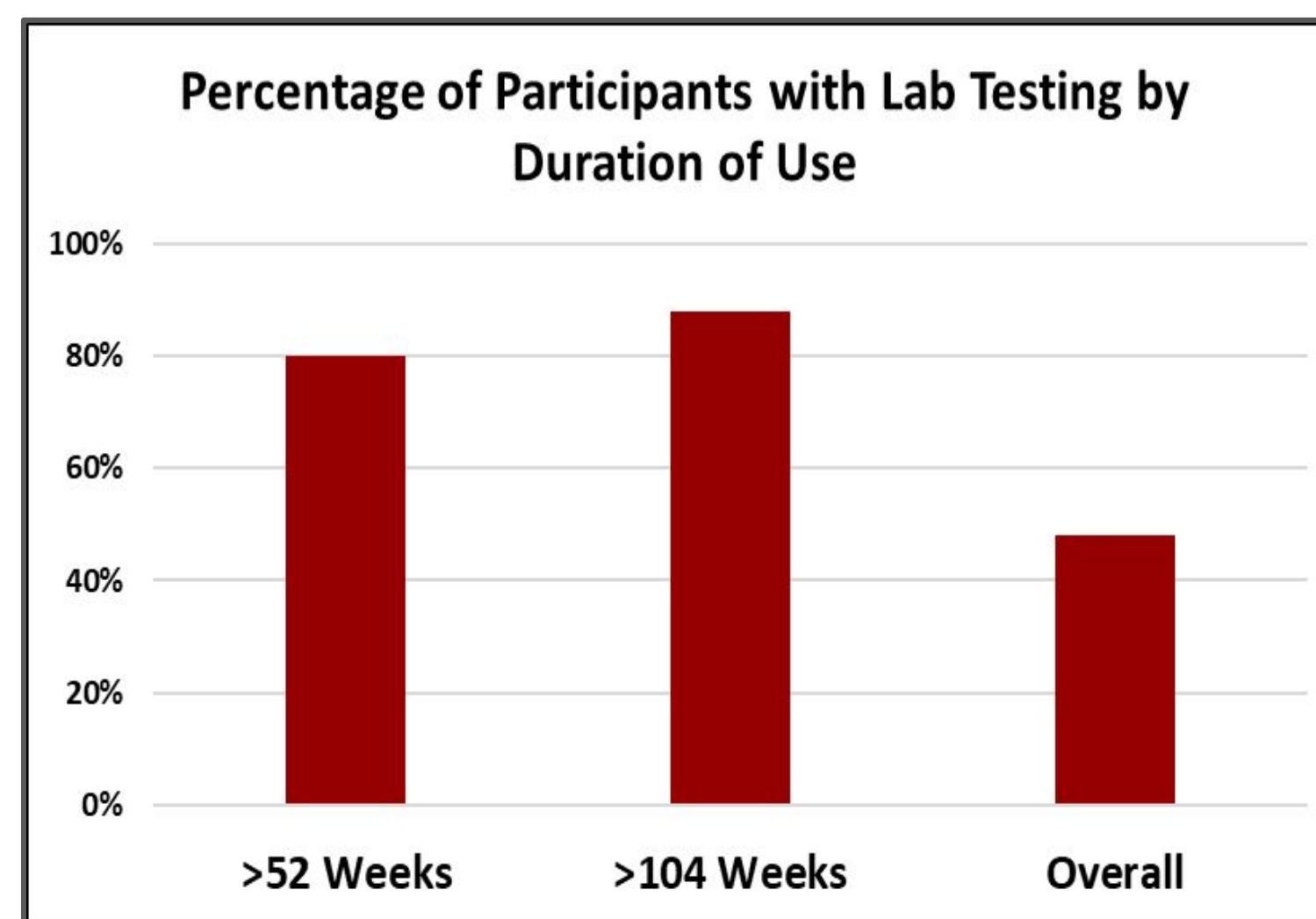


Fig. 1 In the subgroup of patients that took Inner Glow™ for over 2 years, 88% had labs done and 100% of these were within normal limits.

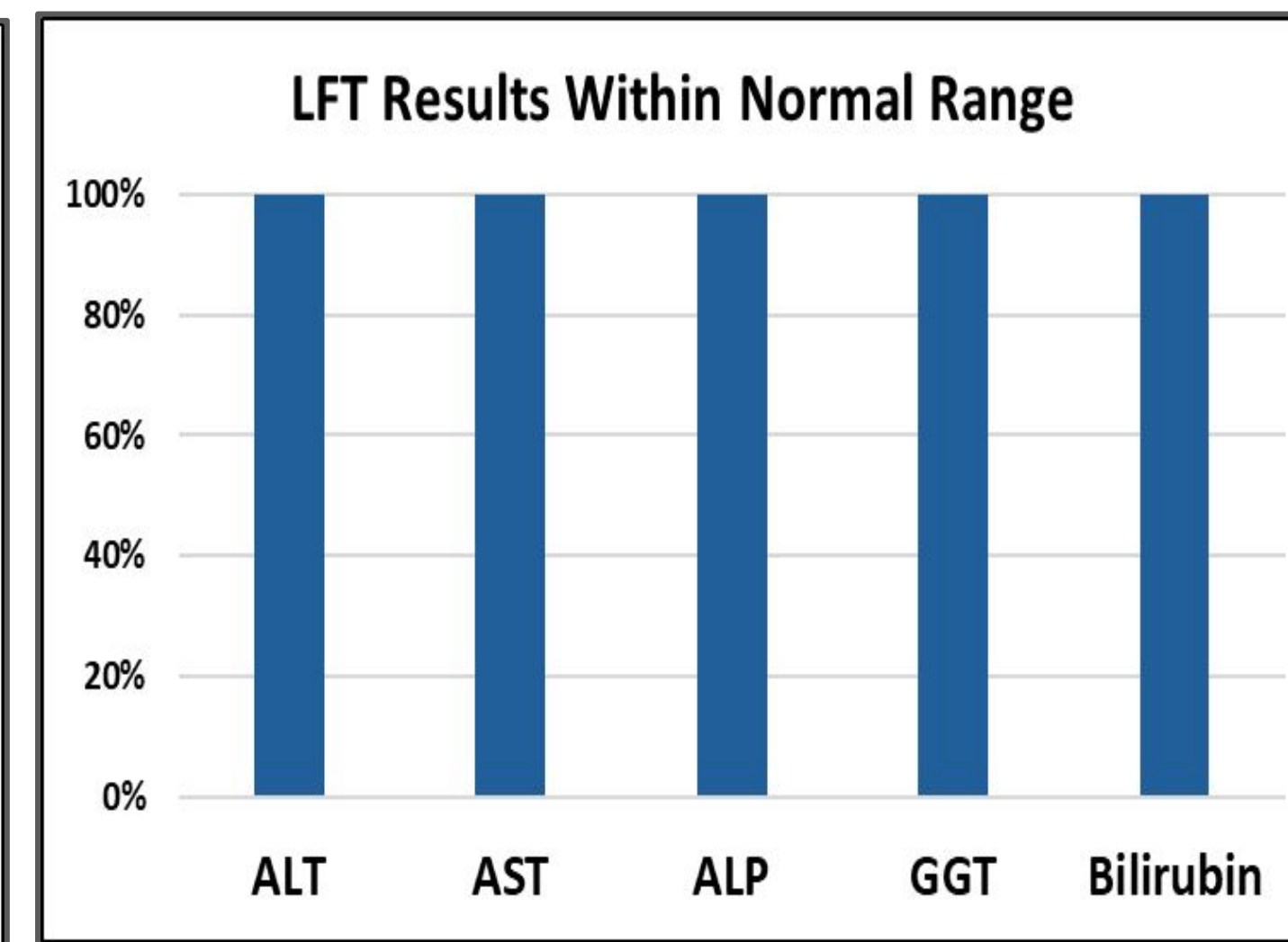


Fig. 2 - All lab values remained normal in 100% of patients tested

Outcomes

- 100% of patients (89.1% female, 10.9 % male) had LFTs that remained within the normal range and no side effects were reported
- Among patients who had been continuously taking the supplement for ≥1 year, 80% had labs available, all showing no significant change in liver enzymes or evidence of hepatic dysfunction
- These finding are in contrast to other commercially available hair supplements some of which have been associated with hepatotoxicity within one month of use. Inner Glow™ was well tolerated, even with consistent use for over 4 years.

Conclusion

Conclusion:

- These findings support the long-term safety of Inner Glow™ supplements for hair loss.
- Regular monitoring of participants throughout the study period (maximum of 4.5 years) revealed no cumulative toxicity or any indication of long-term adverse effects related to the active ingredients in the supplement.

Future Directions:

- Future studies should be prospective, randomized and controlled in design, with larger sample sizes and standardized outcome measures to more rigorously evaluate both safety and efficacy

References

- Rushton, D. H., et al. "Causes of hair loss and the developments in hair rejuvenation." *International journal of cosmetic science* 24.1 (2002): 17-23.
- U.S. Nutraceuticals Market Size: Industry Report, 2030. Grand View Research.
- Chun, Kelly Y. "Biotin interference in diagnostic tests." *Clinical Chemistry* 63.2 (2017): 619-620.
- Commissioner, O. of the. (2019). FDA in Brief: FDA reminds patients, health care professionals and laboratory personnel about the potential for biotin interference with certain test results, especially specific tests to aid in heart attack diagnoses. *FDA*.
- Dugal J, Malhi A, Singh Y, et al. Nutrafol's Hair Gains and Liver Strains. *Am J Gastroenterol*. 2024;119(suppl 10):S2733-S2734.