

## Literature Review

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### Naltrexone: New Use for an Old Drug

Strazzula, L.C., et al. Novel treatment using low-dose naltrexone for lichen planopilaris.

*Journal of Drugs in Dermatol.* 2017; 16:1140-1142.

Recently, the drug naltrexone (an opiate antagonist that is used to help treat those who are dependent on alcohol and opiates) has resurfaced in the dermatology literature. It was presented in the Archives of Dermatology to treat Hailey-Hailey disease (a rare autoimmune blistering disorder) and in the November 2017 issue of the Journal of Drugs in Dermatology, it was suggested as a treatment for lichen planopilaris (LPP), a variant of lichen planus that affects the scalp causing scarring hair loss. Its mechanism as an opioid antagonist (with greatest affinity for mu receptors) has been postulated to also have an effect in treating autoimmune dis-

eases. Dr. Jerry Shapiro at NYU described four case reports using low dose naltrexone (3mg po daily) as an adjunctive therapy for recalcitrant lichen planopilaris. Two patients were male, two were female, and all had been on oral doxycycline and topical clobetasol solution prior to the addition of low dose naltrexone. In all four cases, the patients reported an improvement in symptoms within 1-2 months of starting the drug. They remained on it alone or in combination with oral pioglitazone (p-par gamma agonist) 15mg daily. Side effects may include vivid dreams, nightmares, headache, or increased anxiety, but all four patients tolerated the medication well without any reported side effects.

*Comment:* Perhaps the greatest difficulty in treating LPP is the chronicity and tenacity of inflammation even after years of therapy. There is still no drug that is FDA approved LPP. The use of an old drug for a new purpose with minimal side effects is quite exciting. My local pharmacy has been able to compound 3mg naltrexone in a Loxoral (inactive capsule filler) base. ■

### Nutrafol® vs. Microinflammation

Farris, P.K., et al. A novel multi-targeting approach to treating hair loss, using standardized nutraceuticals. *Journal of Drugs in Dermatol.* 2017; 16:s141-s148.

A recent proof of concept article, spearheaded by my former dermatology partner and nutraceutical expert Dr. Patricia Farris, outlined the role of various botanical ingredients contained in the hair supplement Nutrafol. Specifically, Nutrafol contains curcumin (made from turmeric), which is a potent anti-inflammatory and free radical scavenger. It also inhibits transcription factor TNF-kB, decreasing pro-apoptotic cytokines TNF-alpha and IL-1 that can cause follicular regression. Curcumin also has natural anti-androgen effects, and has been shown to inhibit androgen receptor expression. Because the absorption is typically poor, it is here co-administered with black pepper (*Piper nigrum*), which slows the metabolism and increases its bioavailability. Ashwaghandha is another ingredient known as an adaptogen, a botanical known for lowering stress cortisol levels and increasing endogenous antioxidants. Saw

palmetto is a natural plant-based 5-AR inhibitor, which has been shown to have 38% efficacy in treating MPHL vs 68% efficacy for finasteride. Nutrafol also contains tocopherols (members of the vitamin E family) and marine based collagen hydrolysates. In the article, four case studies of patients using Nutrafol and their before and after photos are provided.

*Comment:* The paucity of medical treatments for hair loss makes any new treatment option quite attractive. There is indeed data summarized in this article supporting the role of these supplements at a molecular level to help mitigate inflammatory factors that may be causing or contributing to hair loss. Additionally, the concerns about sexual side effects (associated with finasteride) and frustration with topical minoxidil (mess, risk of contact allergy) and overall movement toward more natural botanical options may open the door for Nutrafol to have a more relevant role in treating our patients. Although it is marketed toward androgenetic alopecia and recent stress-induced hair loss, there may also be a role in treating cicatricial alopecia as well. We do not have placebo controlled clinical studies with hair weight counts or standardized before and after photos to confirm the efficacy of this supplement. More data is needed. ■