

Background

The Bello Capello (beautiful hair) capsule supplement formulary is designed as a hair regrowth treatment, developed with additional natural botanical ingredients. Minoxidil was first introduced in the 1970s as an oral medication for severe and uncontrolled hypertension treatment. 1, 2, 6 During initial treatments, physicians observed hair regrowth and generalized hypertrichosis (e.g., excessive hair growth) in balding patients which led to the design of a topical minoxidil formulation. 1 Unexpectedly, these earlier trials of oral minoxidil for antihypertensive therapy reported hypertrichosis and hirsutism as side effects associated with persistent use and suggested the compound's possibility for increasing hair growth. 7, 8

Biotin (vitamin B7), a water-soluble B-complex vitamin, plays a critical role in keratin production, which is essential for hair, skin, and nail health. Biotin deficiency has been linked to hair thinning and loss, making supplementation a common adjunct in hair regrowth therapies. The addition of biotin to Bello Capello enhances the supplement's synergistic approach to hair restoration by combining a clinically supported pharmaceutical agent (minoxidil) with a well-established nutrient for follicular support.

Research

According to Suchonwanit, Thammarucha, & Leerunyakul (2019) and Panchaprateep & Lueangarun (2020), topical minoxidil and low-level laser therapy are the primary treatments for androgenetic alopecia (AGA) and have been used off-label for other hair loss conditions. 1, 5 Although topical application is more common, capsule formulations are available. The chemical structure of minoxidil is a piperidino-pyrimidine derivative, with the following structure, 2,6-diamino-4-piperidinopyrimidine-1-oxide (C₉H₁₅N₅O). 1, 3 Although minoxidil has been used globally for over 30 years, the precise mechanism of action remains unknown.

Minoxidil is associated with potent arteriolar vasodilator properties that open potassium channels on smooth muscles of the peripheral artery, leading to hyperpolarization of the cell membrane. 1, 4 Minoxidil affects follicular cells by promoting hair growth and reducing hair loss. 1 Many randomized controlled trials have been conducted in male and female androgenic alopecia patients using topical, with fewer on orally administered minoxidil.

According to Campese (1981), oral minoxidil is mostly metabolized by the liver by conjugation with glucuronic acid with potential vasodilation properties lasting for up to 72 hours. 1, 2 Panchaprateep & Lueangarun (2020) investigated the efficacy of oral minoxidil in an open-label, prospective, single-arm study (n = 30) men ages 24–59 years with AGA types 3-5 treated with oral minoxidil 5 mg once daily for 24 weeks. 5 Results suggest oral minoxidil 5 mg once daily effectively promoted hair growth in the male AGA patients. 5

Biotin supplementation has also been associated with improvements in hair thickness and quality, particularly in individuals with marginal deficiency or hair fragility syndromes. Studies suggest that biotin contributes to keratin infrastructure, which may enhance the structural integrity of newly regrown hair when combined with minoxidil therapy. 16, 17, 18

Interest continues to grow for oral minoxidil in moderate doses for alopecia. 9, 10 Tanaka et al. (2018) examined androgenetic alopecia treatment in Asian men using combination therapy (e.g., oral finasteride once daily, oral and topical minoxidil twice daily, and an injectable treatment containing minoxidil once monthly) for more than six months (n = 18,918). 10 The researchers concluded that minoxidil combinative treatment options provide effective AGA treatment. 10

Conclusion

Topical minoxidil has been approved by the U.S. Food and Drug Administration (FDA) for the treatment of Androgenetic Alopecia (AGA). 1 Although topical minoxidil has been used globally for over 30 years, oral hair regrowth supplements are more recent. Early indications suggest evidence that oral minoxidil is effective in promoting hair regrowth in male patients with AGA. 5

The Bello Capello capsule, combining 1 mg oral minoxidil with 1000 mcg (1 mg) biotin per serving (two capsules, 60-count bottle), represents a novel synergistic supplement that merges pharmaceutical and nutritional support for hair regrowth. Minoxidil provides vasodilatory and follicular stimulation, while biotin supports keratin production and follicle health. Together, these compounds offer a promising dual-action approach for individuals seeking effective, convenient oral hair regrowth therapy.

Although the precise mechanism of action is still unclear, researchers suggest minoxidil acts by expanding hair density and diameter. 11, 12 Biotin's role in keratin synthesis further reinforces the quality and resilience of hair strands. The combined formulation fosters a growth environment for hair, providing premature anagen entry for resting hair follicles, extending the growth (anagen) cycle, and attenuating the telogen phase of the hair cycle. 13, 14, 15

References

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