



## Alopecia areata: current therapy

**A**LOPECIA AREATA is one of the most emotionally devastating of dermatologic disorders. It may affect individuals of either sex and at any age. It is thought to be an autoimmune process mediated by T lymphocytes directed against hair follicles.<sup>1,2</sup> In its mildest forms, it occurs as a transient, mild patchy hair loss that may be present on any region of hair-bearing skin. In its most severe form, it occurs as complete, recalcitrant hair loss over the entire skin surface. Many gradations of severity exist between these two extremes.

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■ See *Ranchoff et al* (pp149–154)

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Extensive hair loss from alopecia areata tends to be most resistant to currently available therapeutic modalities. Minoxidil has been prominent among new therapies being evaluated for this disorder. In this issue of the *Cleveland Clinic Journal of Medicine*, Ranchoff et al report their results with topical minoxidil 3% solution in a small series of patients with extensive, therapeutically resistant alopecia areata. They conclude that minoxidil may be effective in the treatment of some recalcitrant cases despite their finding no differences in hair growth between 3% minoxidil and a placebo during the first three-month, double-blind phase of the study. In other larger series of patients, both 5%<sup>3</sup> and 3% minoxidil<sup>4</sup> have resulted in hair-growth-promoting effects superior to those of the placebo in alopecia areata. Results have further shown evidence of a dose-response effect for topical minoxidil in this disorder.<sup>3,5,6</sup>

Ranchoff et al also conclude that the low percentage of individuals showing cosmetically acceptable regrowth may be related to their selection of individuals who were recalcitrant to other therapies prior to their inclusion in this study. Data from the literature supports this contention. Price<sup>6</sup> obtained better cosmetic results with 5%

minoxidil in her previously untreated patients than I did.<sup>5</sup> My patients were primarily those who had been treatment-resistant. The mechanism of action of minoxidil in stimulating hair regrowth in alopecia areata is unknown. It is thought, however, that its primary effects are exerted on the hair follicle and that secondary indirect local immunomodulatory effects may then occur.<sup>2</sup> Although evidence suggests that minoxidil may be effective in alopecia areata, much work remains to be done to determine its true therapeutic potential in this disorder.

Approaches to the treatment of scalp hair loss from alopecia areata vary widely.<sup>7</sup> Corticosteroids topically and/or intralesionally are the commonly, but not universally, accepted first mode of therapy. In my experience, this approach is particularly useful in those with less than 25% scalp hair loss, although good response may be seen in those with much more extensive alopecia. Topical anthralin, a local irritant substance, is also recommended by some.<sup>7,8</sup> It has been associated with approximately 25% cosmetically acceptable regrowth in those with extensive alopecia areata.<sup>8</sup> Topical sensitizers such as squaric acid dibutylester elicit a local delayed hypersensitivity reaction and have shown variable results in alopecia areata.<sup>9</sup> Sensitizers are difficult to use in that the degree of dermatitis elicited by these agents may vary dramatically over time. In my experience, sensitizers do not generally offer any therapeutic advantage to individuals who had alopecia areata resistant to several other treatments. Photochemotherapy with psoralen and long-wave ultraviolet light exposure has been tried and has demonstrated variable results.<sup>10</sup> Systemic corticosteroids<sup>11</sup> may be effective, but hair loss generally rapidly recurs as the steroid dose is tapered. The probable diverse mechanisms of action of all these therapies are thought to result from local immunomodulatory effects.

The multitude of therapeutic approaches underscore the fact that the search for safe, effective forms of treat-

ment for extensive alopecia areata is ongoing. All evidence suggests that even successful therapy does not imply a drug-induced remission. In fact, treatment for most individuals with extensive hair loss who achieve cosmetically desirable regrowth must continue in order to maintain the regrowth.<sup>5-7</sup> It is hoped that ongoing research will enhance our understanding of the patho-

genesis of alopecia areata and provide therapies that will be safe and effective for long-term use in this disorder.

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