

HAIR DISORDERS

AZATHIOPRINE FOR THE TREATMENT OF EXTENSIVE FORMS OF ALOPECIA AREATA: A SYSTEMATIC REVIEW

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Introduction: Alopecia areata (AA) is postulated to be an autoimmune hair disorder characterized by patches of hair loss with the clinical variants ophiasis and severe and extensive variants alopecia areata totalis and universalis, having poor response to therapy. Oral steroids have been used to treat severe forms of the disease, requiring prolonged therapy, which leads to side effects such as skin atrophy, weight gain, Cushing syndrome, immunosuppression, and hypothalamic-pituitary-adrenal axis suppression, while discontinuation of the treatment leads to high relapse rate. Azathioprine has been utilized as a steroid-sparing agent for the more severe forms of the disease.

Objective: To review the current evidence on the efficacy and adverse effects of azathioprine as a treatment for severe forms of alopecia areata.

Materials and Methods: Observational and interventional studies that utilized azathioprine as a treatment for alopecia areata were obtained from all published articles until July 2018 on MEDLINE, Cochrane Library, TRIP, HERDIN, and Google Scholar electronic databases.

Results: Seven articles underwent a full-length review. Clinical AA variants included were mostly patchy AA covering at least 20% scalp area, diffuse AA, steroid-resistant AA, reticulate pattern, alopecia totalis and universalis, ophiasis, and sisaphio. Azathioprine doses ranged from 2-2.5 mg/kg/day while one study used a weekly 5 mg/kg pulse therapy. Initial response ranged from 6 weeks to 12 weeks, with case reports noting almost complete resolution by 32 weeks. Sustained response was noted for at least 6 months after azathioprine cessation, with only 2 out of 14 patients in one study relapsing at 2.5 months. Common adverse effects were anemia, neutropenia, elevated liver function tests, nausea, vomiting, diarrhea, headache, and transient worsening of alopecia.

Conclusions: This review demonstrates emerging evidence on the efficacy and safety of azathioprine for the treatment of extensive forms of alopecia areata. Randomized-controlled trials are needed to evaluate its efficacy.