

ALOPECIA AREATA IN PEDIATRIC PATIENTS

CLINICAL PRESENTATION

A clinical diagnosis of alopecia areata is confirmed using *trichoscopy*. Wood light examination and examination of plucked hairs or skin scrapings may be required to exclude tinea capitis. Blood tests may be considered if there are concerns about coeliac disease or other associated autoimmune conditions and skin biopsy is rarely required in children.



Differential Diagnoses

Tinea capitis should be suspected in any case of patchy hair loss when evidence of scalp inflammation exists, particularly in children. Fungal microscopy and culture should be performed. Trichotillomania is where hairs are removed by the patient. The hair loss is usually incomplete with multiple broken hairs of varying length. Younger children often grow out of this disorder but in older children and adults it may signify more marked psychological problems. Cicatricial (scarring) alopecias are uncommon inflammatory disorders that target and destroy the hair follicle, resulting in permanent alopecia. They are characterized clinically by loss of visible follicular ostia. Scalp biopsy is often diagnostic.



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AA TREATMENTS BY DISEASE SEVERITY

Mild or Limited Up to 20% of Scalp Hair Loss	Intralesional Corticosteroids	Use: Often used with other treatments for maximum effect. Can help decrease inflammation around the hair follicles to encourage hair growth. Dose: Can be repeated every four to six weeks
	Topical Corticosteroids	Use: Typically the first choice for children and adults who can't have intralesional injections. Vehicles: Lotion, foam, cream, or ointment
	Topical Minoxidil	Dose: Once or twice a day; 2% and 5% solutions. Use: Often used in combination with topical corticosteroids for better efficacy.
	Off-Label Oral Minoxidil	May help suppress the overactive immune response and is frequently used in conjunction with other therapies to enhance hair regrowth.
Moderate 21%-49% of Scalp Hair Loss	Off-Label Oral Minoxidil	May help suppress the overactive immune response and is frequently used in conjunction with other therapies to enhance hair regrowth.
	Pulse Corticosteroids	Dose: Oral or intravenously at regular intervals, not continuously. Adverse Events: Weight gain, osteoporosis, rising blood sugar levels, and high blood pressure
	Topical or Contact Immunotherapy	Options: Squaric acid dibutyl ester (SADBE) and Diphencyprone (DPCP)
	Off-Label JAK Inhibitors	See "Severe"
	Off-Label Dupilumab	Use: First-line treatment for people who also have atopic dermatitis or a family history of atopic dermatitis.
Severe 50%-100% Scalp Hair Loss	Off Label Baricitinib	 Indication: First-line therapy for adults with severe alopecia areata Dose: Once-daily oral pill Adverse Events: Upper respiratory tract infections, headache, acne, hyperlipidemia, increased muscle enzyme levels, urinary tract infections, increased liver enzyme levels, folliculitis, tiredness, lower respiratory tract infections, nausea, genital yeast infection, anemia, neutropenia, abdominal pain, herpes zoster, and weight gain. Boxed Warning includes information about the risk for serious infections, mortality, cancer, cardiovascular events, and thrombosis
	Ritlecitinib	 Indication: First-line therapy for individuals 12 years of age and older with severe alopecia areata Dose: Once-daily oral pill Adverse events: Headache, diarrhea, acne, rash, urticaria, folliculitis, fever, atopic dermatitis, dizziness, blood creatinine phosphokinase increase, herpes zoster, red blood cell count decrease, and stomatitis. Boxed Warning includes information about the risk for serious infections, mortality, cancer, cardiovascular events, and thrombosis



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APPROVED AND EMERGING THERAPIES



SCREENING FOR COMORBIDITIES

The most common comorbidities in pediatric AA:

- atopic dermatitis
- anemia
- obesity
- vitamin D deficiency
- hypothyroidism
- vitiligo
- psoriasis
- hyperlipidemia
- depression

In addition, several conditions are more prevalent in patients with AA:

- atopy
- atopic diseases
- thyroid disorders
- metabolic syndrome
- Helicobacter pylori infection
- lupus erythematosus
- iron deficiency anemia
- psychiatric diseases
- vitamin D deficiency
- audiologic and ophthalmic abnormalities