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Blog



General Medicine

Alopecia Areata

The autoimmune condition alopecia areata, including its symptoms, incidence, diagnosis, and treatment.

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Alopecia areata (AA) is an autoimmune condition causing a recurrent non-scarring type of hair loss that can affect any hair-bearing area of the body. The autoimmune process in alopecia areata appears to be T-cell mediated although antibodies to anagen hair phase follicle structures are seen in about 90 percent of patients with AA compared to 37 percent of normal controls. The outer sheath of the hair follicle, the tiny cup structures from which hair grows, is targeted most often by hair follicle antibodies, followed by antibodies directed against the inner root sheath, the matrix, and the hair shaft.

SYMPTOMS

In most cases, hair falls out in small, round patches about the size of a quarter. In about 80 percent of patients, only a single patch of hair is affected. Often, the disease causes a few bare patches on the scalp although in some people hair loss is more extensive and can cause complete baldness causing a condition of alopecia areata totalis. In some cases, hair loss occurs on all parts of the body, causing a condition of alopecia areata universalis.

Loss of eyelashes, eyebrows, nasal hair and hair in the ears can cause vulnerability to dust, germs, and foreign particles. Nail involvement, usually pitting, occurs in 6.8-49.4 percent of patients and occurs most often in patients with severe forms of AA. Although alopecia areata is considered a benign condition, it can cause emotional and psychosocial stress in affected individuals.

Hair lost to alopecia areata can grow back, but it can also be subjected to loss again. There is no way to predict the individual's pattern of hair loss and regrowth. In some cases, the initial hair regrowth is white although there is a gradual return of the original hair color. In most cases, hair grows back with the same color and texture that it had.

Atopic dermatitis occurs in 9-26 percent of patients with AA. Vitiligo occurs in about 1.8-3.0 percent of patients with AA compared to 0.3 percent in normal control subjects. About 7 percent of patients with AA have thyroid antibodies. The incidence of insulin dependent diabetes mellitus is lower in patients with AA than in the normal population, suggesting that alopecia areata may confer protection from diabetes.

Alopecia occurs in 6-8.8 percent of patients with Down's syndrome although only 0.1 percent of patients with AA have Down's syndrome. This suggests a genetic linkage for AA, perhaps on chromosome 21.

AA PATTERNS

Alopecia areata is classified according to the pattern of baldness it causes. Hair loss in alopecia is usually classified as localized and patchy. Hair loss that is more extensive and in which the patches coalesce or merge is called a reticular pattern. Ophiasis pattern occurs when the hair loss is localized to the sides and the lower back of the scalp. Saisapho patterns are seen when the hair loss spares the sides and back of the head.

WHO IS AFFECTED?

Alopecia areata affects an estimated four million Americans. People of both sexes and of all ages and ethnicities can be affected. Peak incidence appears to occur between 15-29 years. When AA develops before age 30, other immediate family members have a greater chance of developing it. Overall, one in five people with alopecia areata have a family member who is also affected. People with alopecia often have a family history of other autoimmune diseases, such as diabetes, rheumatoid arthritis, thyroid disease, systemic lupus erythematosus, pernicious anemia, or Addison's disease. People with alopecia do not usually have another autoimmune disease although they have a higher risk for thyroid disease, atopic eczema, nasal allergies, and asthma.

DIAGNOSIS

Diagnosis can usually be made on clinical grounds, but when diagnosis is uncertain a biopsy can be helpful. Biopsies in AA show a peribulbar lymphocytic infiltrate.

TREATMENT

Treatment is not always necessary since alopecia is considered benign. Also, spontaneous remissions are common as are recurrences. Corticosteroids are used to suppress the immune system in patients with alopecia areata. They may be administered orally, as topical ointments, or as local injections administered directly into the area of hair loss. Topical preparations tend to work best when combined with other topical treatments such as minoxidil (Rogaine) or anthralin (Psoriatec).

Other treatments occasionally used for alopecia areata include clobetasol propionate topical foam (Versafoam), betamethasone dipropionate lotion, dexamethasone, sulfasalazine, topical sensitizers such as squaric acid dibutyl ester (SADNE) and diphenylcyclopropenone (DPCP), oral cyclosporine, and photochemotherapy, a treatment used most commonly for psoriasis and vitiligo.

Alternative therapies include acupuncture, aromatherapy, evening primrose oil, zinc and vitamin supplements, and Chinese herbs. In aromatherapy, a combination of oils such as lavender oil, almond oil and rosemary oil are applied to the bald area for 20 minutes to help stimulate hair growth.

ENVIRONMENTAL TRIGGERS

Autoimmune disorders are known to develop in persons with certain immune system genes when they are exposed to certain environmental triggers. There are reports of alopecia areata developing after the use of synthetic estrogens in oral contraceptives and permanent remission occurring when these medications were stopped. Viruses are also suspected of triggering alopecia areata, but no specific viral causes have been identified. Stressful life events within the 6 months prior to the development of AA were higher in patients with AA compared to patients with androgenetic alopecia.

Resources:

Chantal Bolduc, Alopecia Areata, eMedicine, June 21, 2006.

Alopecia Areata, National Institutes of Health Topics, www.niams.nih.gov/hi/topics/alopecia/alopecia.htm.



Alopecia Areata Help

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