Alopecia areata is an autoimmune disease, chronic in nature, with a pattern of relapsing immune-mediated inflammation of the hair follicles. This inflammatory process affects the hair follicle size resulting in it becoming smaller with associated retardation of hair production. This leads to non-scarring hair loss ranging from small patches of alopecia to the complete loss of scalp, eyebrow, eyelash, nasal hair and body hair.

Hair often falls out in small round smooth patches of a few to several centimetres on the scalp with an outside perimeter of broken hair strands known as “exclamation point hairs”. These hair loss patches may develop over a few weeks. Over time the small patches can broaden and join to form irregular areas of hairless scalp, and in some cases extending to other parts of the body. In a small number of people the alopecia can extend to involve the loss of all hair on the scalp (alopecia totalis) or in rare cases hair loss over the entire body (alopecia universalis).

Sudden hair loss can occur, however, due to the lack of permanent hair follicle damage, in most people the hair will grow back over months and years. Once the hair grows back there can be an altered patchy pattern with the potential for
repeated inflammatory episodes resulting in new hair loss. The extent of inflammation and associated hair loss is unpredictable as is also the length of time between episodes and the time it takes for regrowth.

**SYMPTOMS**

As in all autoimmune conditions, the body’s immune system enters into a confused state and begins to mistakenly attack its own systems.

In the case of Alopecia, the hair follicles are targeted. Whilst the condition is not life threatening and in general does not have associated physical pain, the loss of hair can cause immense psychosocial impacts as well as symptoms related to loss of protective hair coverings.

**For example:**

- The loss of eyelashes and nasal hair can result in increased irritation of eyes and nasal passages with increased risk of foreign body intrusion such as dust
- Bare patches of skin are more susceptible to sun burn therefore increased vigilance in adhering to common sun protection measures of wearing sunscreen as well as protective clothing and eyewear are recommended
- The pitting of finger and toe nails is common therefore, adherence to careful hand, feet and nail care regimes can help reduce impacts

**DIAGNOSIS**

It is important to have your hair loss episodes examined by a medical doctor as there are many conditions that can be associated with Alopecia episodes and thinning of hair. A decrease in the number of red blood cells due to B12 deficiency (pernicious anaemia), inflammation of the thyroid gland, lupus, vitiligo, as well as pregnancy, menopause, and infections of scalp and hair follicles can all cause hair loss. As a basic diagnostic step, your doctor will examine your scalp for the appearance and pattern of hair loss. Specifically, patterns of smooth patches with short broken hairs around the borders can be characteristic of alopecia.

**If an autoimmune condition is suspected, addition tests may be undertaken these can include:**

- Immunological tests of antinuclear antibodies
- Thyroid hormones
- Iron levels
- Free and total testosterone
- Follicle stimulating and luteinizing hormones
- Measures of inflammation such as C-reactive protein and erythrocyte sedimentation rate.

An important impact of experiencing episodes of alopecia is the psychosocial impact that can occur. The loss of hair, the sudden nature of the loss and the inability to hide extensive area of hair loss can significantly impact on an individual’s self-esteem and lead to emotionally challenging period in their lives. It is not uncommon for people experiencing this autoimmune condition to experience periods of stress, depression and anxiety with a sense of isolation. The support of a counsellor, psychologist or simply speaking with other people living with alopecia can help.

Causes, risk factors and prevalence

The exact cause of alopecia is not known, however it is believed that genetics as well as an environmental trigger is needed for a person genetically predisposed to present with the condition. This belief is based on research that shows that people with a family history of autoimmune diseases, in particular type 1 diabetes and Rheumatoid arthritis, increasing your risk factors for alopecia and 20% of people with alopecia also report to have a close family member with the condition as well (2 patient info UTD).

Alopecia can affect both men and women and people from all ethnic backgrounds. It can affect all age groups, however, first time episodes are more likely to occur before the age of 30. Estimates of lifetime prevalence are reported to be as high as 1 in 50.
Other treatment options can involve the use of either oral or a topical light sensitive drug (psoralen) and subsequent exposure to a control ultraviolet light source.

However, success of treatment has had mixed results reported. Additionally, the use of this treatment can increase risk factors for cutaneous malignancy. More systemic treatments such as oral glucocorticoids and other immune suppressive or immune modulating medications are usually only consider in severe cases. Alternative therapies such as acupuncture, acupuncture, vitamins and herbal supplements have been reported to be used as a treatment however, little testing of their effectiveness has occurred therefore treatment success is not known.

TREATMENT

The overall management of alopecia needs to be a joint patient-physician plan which includes consideration involves consideration of the impact of the condition and psychosocial needs of the person experiencing hair loss episodes. Not all people with alopecia require treatment as in many cases the hair will regrow without intervention. Many people with both short and long term period of hair loss opt for camouflage treatments and self-management of potential increased risk factors such as sunburn or irritation of eyes and nasal passages.

If treatment is undertaken first line therapy often includes intralesional or topical corticosteroids and/or topical immunotherapy appliedas creams or lotions. These medications are used to treat the inflammatory process that is occurring and serve to help reduce the increased activity of the immune system.

Hair growth stimulating agents such as minoxidil can be applied in the case of patchy alopecia however effectiveness in severe or extensive alopecia is limited (3 in patient UTD). Topical minoxidil is reported to promote hair growth by increasing the growth phase of follicles and stimulating the follicles to produce hair.

THE ART OF CAMOUFLAGE

Learning the art of camouflage, covering up with wigs, hat and scarves can provide relief from appearance concerns. If milder hair loss has occurred, treating yourself to a skillful hairdressing appointment can teach you some camouflage techniques with hair sculpture. For loss of eye brows and lashes cosmetic application or tattooing can be helpful. In some cases, the consideration of shaving the scalp may be considered as this can reduce the patchy appearance. Shaving the scalp can also allow wigs to have better more even and secure fit.

Support organisations

Further information about alopecia areata can be obtained from:

Alopecia UK
www.alopeciaonline.org.uk

National Alopecia Areata foundation
www.naaf.org

Australian Alopecia Areata Foundation inc.
www.aaaf.org.au

References


