# Hair loss vs. emotion: How negative emotions could be increasing your hair loss

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## Introduction

Alopecia Areata (AA) is a chronic inflammatory skin disease that affects hair follicles, causing marked hair loss on the scalp and body (1, 2). Globally, it affects 0.2% of individuals (3, 4), has a lifetime prevalence of 2% (4), and accounts for up to 2% of dermatology patients (1). The disease occurs equally within both sexes and affects individuals of all ages (2, 4). Although the etiology of AA is not known, there are various factors that may play a role in its occurrence and severity, including immune system dysfunction, genetic, and psychological factors (1). Some research has shown that AA may be exacerbated and precipitated by stressful life events (5), but it is generally accepted that AA has several psychosocial consequences including lowered self-esteem, depression, and less frequent social outings (3). Depression and anxiety are commonly diagnosed alongside of AA and researchers have found that there is a clear link between the severity of AA and depression and anxiety symptoms (4). As such it is vital that AA patients be screened and subsequently treated for any anxiety and depression symptoms that may be present both at the onset of their AA as well as throughout their illness.

# Link between depression, anxiety, and Alopecia Areata

Individuals diagnosed with AA have been found to have a higher prevalence of both depression and anxiety, with incidence rates as high as 93% and 40% respectively in the United States of America (3). Since AA is a condition which can be quite traumatizing and psychologically damaging due to the social repercussions that are associated with baldness or thinning hair, researchers have explored this relationship to discover contributing factors to both anxiety and depression within the AA spectrum of severity. Several studies have found that although the incidence rate of AA is equal among males and females, females are particularly susceptible to anxiety, depression and other

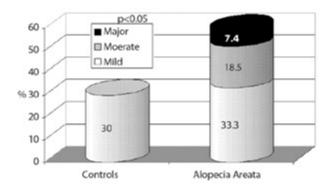


Figure 1. Depression Assessment of Healthy Controls and AA Patients over the age of 16 years (1).

psychological disorders (2). The reasoning for this is likely the social value that women place on their hair and the societal pressure placed on women to have hair, causing them more stress and trauma when their hair falls out (3). Additionally, women are less likely to accept changes in appearance, leading to lower self-esteem and therefore higher rates of depression (3). Figure 1 demonstrates the relationship between the severity of AA and the occurrence of depression when compared to controls (1).

Despite this link between AA and depression and anxiety it is still unclear whether AA is causing anxiety and/or depression or whether those who have anxiety and depression are more likely to go on to develop AA (2 - 4). There has been evidence that depression could be a precursor to AA, including one study which showed that the use of the antidepressant Citalopram during treatment of AA on patients with major depressive disorder significantly decreased their hair loss symptoms when used in conjunction with a dermatological treatment (5). Additionally, it has been shown that when depressed patients with AA underwent hypnotic therapy

alongside the use of the antidepressant Imipramine, their psychological well-being improved significantly, and their hair regrowth increased as well. This indicates that there may be some underlying relationship between depression and the severity of AA (5).

# Links between life stressors and Alopecia Areata

In approximately 25% of AA patients in a 10-year study based in Boston, Massachusetts, a significant stressful life event such as a death in the family, family or work stress, or marital problems occurred prior to the onset of the disease (5). Additionally, it has been found in numerous studies that due to the stressful nature of AA, those who have a more severe form of AA (indicated by more persistent and diffuse hair loss throughout the body) are also found to have a higher prevalence of both depression and anxiety, indicating that stressful life events may accelerate the onset of AA (2, 4). Similarly, AA patients seem to have experienced more stressful life events when compared to their healthy siblings, indicating a link between stress level and symptoms relating to AA (5). Interestingly enough, the duration of the disease does not seem to be an accelerating factor to hair loss; instead, it has been found that the patient's anxiety and stress levels towards their disease are related to the severity of hair loss that they experience (2, 4).

# Conclusion

Overall, AA patients experience a higher prevalence of both anxiety and depression when compared to the general population. Future research is needed to better understand the nature of this relationship and to determine effective

treatment methods that combat AA as well as depression and anxiety symptoms. Based on the available evidence, one might speculate that the severity of AA may be related to the severity of which the patient experiences depression and anxiety symptoms. Stress appears to be implicated with the disease and exacerbates the symptoms of AA, which in turn seems to elevate symptoms of both anxiety and depression (1). Consequently, it has been suggested that psychological testing or screening should be completed in conjunction with a diagnosis of AA for all patients (1, 3). By properly managing and alleviating the symptoms for both anxiety and depression in AA patients, it becomes likely that the AA symptoms will also significantly decrease (5). This in turn may lower their overall stress and anxiety levels, which could lessen their symptoms even further.

#### List of Abbreviations

AA- Alopecia Areata

### References

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## Rebecca Lewinson

Rebecca Lewinson graduated from the University of Ottawa in 2014 with a B.Sc. specialization in Psychology. She has worked since 2013 as a research assistant, during which time her primary focus has been spent creating a reliable age-friendly checklist which hopes to improve the lives of senior citizens and disabled individuals through manipulating the built environment and social support structures that they experience, as well as aiding in developing an online wellness program for youth. Her main research interest lies in mental illnesses and the preventative applications associated with them. Rebecca has worked in the public health sector for over six years in various roles, including delivering programs to youth regarding mental health, and working as a senior medical scribe in an emergency department.