

Comorbidities of alopecia areata – a population-based cohort study

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First published: 11 November 2020 | <https://doi.org/10.1111/ced.14507>

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Abstract

Background

Previous studies have associated AA with a number of comorbidities. However, the timing between AA and development of such comorbidities remains poorly understood.

Aim

To examine the temporal relationship between AA diagnosis and comorbidity development in Denmark.

Methods

A Danish nationwide register-based cohort study was performed on all individuals diagnosed with AA between 2007-2016 (n=1,843) matched on age and sex with 10 controls. Time between AA and comorbidity development was assessed, and incidence rate ratios (IRRs) were calculated to assess risk of comorbidity following initial AA diagnosis.

Results

Use of antidepressant and anxiolytic drugs mostly started prior to diagnosis, and these drugs were used more frequently before diagnosis than after diagnosis with AA. Additional frequent comorbidities included thyroid disease, hyperlipidemia, type 2 diabetes, and asthma. Most comorbidities occurred prior to AA diagnosis, however, among those that occurred after AA diagnosis, antidepressants (IRR 1.26, 95% confidence interval [CI] 1.01-1.56), anxiolytics (IRR 1.55, 95% CI 1.17-2.05), atopic dermatitis (IRR 9.41, 95% CI 4.00-22.16), asthma (IRR 2.17, 95% CI 1.46-3.21), vitiligo (IRR 30.35, 95% CI 6.13-150.39), Crohn's disease (IRR 3.04; 95% CI 1.22-7.56), and thyroid disease (IRR 2.38; 95% CI 1.72-3.29) occurred more frequently among patients with AA compared to controls.

Conclusion

A diagnosis of AA was significantly associated with risk of several comorbidities, most notably vitiligo, atopic dermatitis, and Crohn's disease. Nonetheless, the majority of patients appeared to have developed these comorbidities prior to AA diagnosis, suggesting that a thorough medical history screening by dermatologists at the initial visit may be appropriate.