



Hertoghe's Sign in Atopic Dermatitis

A 15-year-old boy presented to the clinic owing to a concern over the loss of hair in both eyebrows. Over the past 6 months, his preexisting atopic dermatitis had progressively flared, but he was not receiving treatment. In addition to severe facial and flexural eczema, he had prominent rarefaction of the lateral one-third of both eyebrows, a finding known as Hertoghe's sign (Figure, A).¹ The patient denied eyebrow plucking or rubbing. Laboratory tests showed eosinophilia (1070 cells/mm³), normal thyroid function, and negative syphilis testing. He was treated with emollient creams and topical corticosteroids on the eczematous skin lesions with improvement of the atopic dermatitis. With clearing of facial eczema, partial regrowth of eyebrows was observed on follow-up 2 months later (Figure, B).

Hertoghe's sign is a rare clinical stigma defined as the thinning or complete loss of the lateral one-third of eyebrows. Although it was initially described by the Belgian physician Eugene Hertoghe more than 100 years ago in patients with hypothyroidism, it is nowadays most often seen in atopic dermatitis. Hertoghe's sign has also been reported in other conditions, including hypoparathyroidism, lepromatous leprosy, and syphilis. This stigma is also called Queen Anne's sign because a contemporary portrait of Queen Anne of Denmark depicts a woman with abbreviated eyebrows, although history does not suggest that she had any of the aforementioned conditions.

Diepgen et al reported that 39% of patients with atopic dermatitis had Hertoghe's sign, compared with approximately 1% of healthy controls.² However, this high prevalence includes mild forms. Regarding its pathogenesis, it has been hypothesized to be associated with eyebrow rubbing or altered skin integrity owing to inflammation. Other researchers have postulated that Hertoghe's sign may be due to autonomic nervous system dysfunction.³ The clinical improvement of eyebrow rarefaction after adequate treatment of eyebrow eczema supports the fact that Hertoghe's sign is likely associated with the degree of skin inflammation observed in atopic dermatitis. ■

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Figure. **A**, Prominent rarefaction of the lateral one-third of the eyebrow in severe facial eczema. **B**, Clearing of facial eczema with partial regrowth of the lateral one-third of the eyebrow.

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