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Bitemporal alopecia areata

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Abstract

Alopecia areata has various clinical presentations, some of which have recognised prognostic significance. We report five cases of bitemporal alopecia areata, with involvement of the frontal hair line, the therapeutic approach for each case and possible differential diagnosis.

Introduction

Alopecia areata is an autoimmune condition resulting in various degrees of hair loss. Clinical presentation varies from patchy disease to diffuse involvement.

Predominant bitemporal alopecia areata is an unusual presentation of alopecia areata. To our knowledge it has not been described before, either occurring in isolation or in association with patchy loss elsewhere. While characteristic patches are easily diagnosed, atypical patches are much more challenging. Given the site of presentation other differentials including androgenetic alopecia, chronic telogen effluvium, frontal fibrosing alopecia, traction alopecia and congenital triangular alopecia may also need to be considered. In this paper we present five cases of bitemporal alopecia areata.

Main text

Alopecia areata has recognised disease phenotypes: patchy disease, diffuse pattern, ophiasis, sisaipho, alopecia totalis and alopecia universalis. Bitemporal alopecia areata represents an interesting presentation of alopecia areata, either occurring in isolation or in association with patchy

disease elsewhere. Table 1 presents five cases of bitemporal alopecia areata with involvement of the frontal hair line and shows the selected therapeutic approach for each case.

Among the cases presented, there are subtle variation. Medial involvement of the frontal hair line may or may not be present and frontotemporal extension was evident in two cases (case 4 and case 5). Denuded areas with rounded scalloped edges supported by classic dermoscopic feature of alopecia areata (black spots, yellow spots and exclamation hairs) allow prompt clinical diagnosis. Figures 1 and 2 show clinical and dermoscopic findings of the case 3, respectively. The challenge is when the duration of the bitemporal hair loss is unknown and the clinical and dermoscopic features could also suggest other conditions presenting with bitemporal hair loss, including androgenetic alopecia and chronic telogen effluvium.

Bitemporal recession in association with thinning of the vertex is an unusual pattern of female pattern hair loss.^{1, 2} The more common patterns seen in female pattern hair loss are the Ludwig pattern or frontal accentuation pattern.^{2, 3} Bitemporal recession is seen more in post-menopausal women than pre-menopausal women and was found to be a poor indicator of hyperandrogenaemia.⁴ In men, bitemporal hairline recession is seen in most post pubertal men,⁵ and was found in one study, to have similar prevalence rates in different age groups.⁶ Dermoscopy may reveal miniaturisation, hair shaft variability and empty hair follicles. Nonetheless, biopsy to confirm androgenetic alopecia however, should be from the central scalp.²

Bitemporal hair loss can be a feature in women with chronic telogen effluvium. Chronic telogen effluvium is characterised by a history of excessive shedding, typically in middle aged women. Hair density is preserved and miniaturisation is not a feature.^{7, 8} There may be associated trichodynia and dermoscopy confirms < 20% hair shaft variability.

Other possible differential diagnosis include frontal fibrosing alopecia, traction alopecia and congenital triangular alopecia. Frontal fibrosing alopecia is characterized by progressive frontotemporal recession due to inflammatory destruction of hair follicles resulting in scarring alopecia.⁹ Traction alopecia is a form of localized hair loss related to persistent excessive traction and it may leave permanent alopecia if not resolved at its earlier stages. Temporal triangular alopecia appears as a non-scarring spear-shaped loss of hair usually seen on the frontotemporal scalp that persists without changes for life since birth or childhood.¹⁰

Treatment in alopecia areata is largely determined by the degree of hair loss, site of involvement, efficacy of treatment and patient choice. Where tolerated, our patients were managed with intralesional corticosteroids (2.5mg/ml). We recommend 2.5mg/ml triamcinolone acetonide for

bitemporal alopecia areata given the risk of epidermal/dermal atrophy with higher doses and the difficulty in determining the original hair line. Marking out the presumed frontal hair line pre-injection administration is a useful measure to avoid unnecessary injections to atrophy prone sites.

Conclusion

In summary, while the diagnosis of alopecia areata is usually straightforward, the unusual variant of bitemporal alopecia areata may be subtle. The purpose of this report is to highlight the distinct presentation of alopecia areata and recognise the clinical mimickers it could also represent. Excluding androgenetic alopecia and chronic telogen effluvium can be done on history, clinical examination and dermoscopy, but very occasionally a scalp biopsy may well be indicated. More importantly, bitemporal hair loss may be the only presentation of alopecia areata and early recognition will facilitate early treatment, arresting potential for further disease progression. Whether this represents a variant of ophiasis alopecia areata is difficult to say, further case reviews with longer term follow up may assist in establishing the true significance of this pattern and determine if indeed, it is of prognostic value.

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Figures and Tables

Table 1: Description of five cases of bitemporal alopecia areata.

Figure 1: Acute alopecia areata relapse manifesting as bitemporal recession (right more than left) in a patient on ciclosporin (case 3). Regrowth is seen with treatment optimisation.

Figure 2: Dermoscopy findings of case 3 revealed black dots and miniaturised hairs.

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Table 1: Description of five cases of bitemporal alopecia areata.

Cases	Age	Sex	Medical history	Management
1	47 years old	Male	History of patchy alopecia areata with recurrent episodic relapses have been characterised by acute bitemporal loss with occasional extension along the frontotemporal hair line. Patchy eyebrow and eyelash loss have been associated features.	Tofacitinib daily, intralesional corticosteroid
2	43 years old	Female	History of acute history of bitemporal hair loss. There was a prior history of patchy alopecia areata. There was no acute illness in the preceding months.	Intralesional corticosteroid
3	11 years old	Female	History of severe patchy alopecia areata. After achieving complete regrowth on ciclosporine, acute bitemporal loss was reported with noticeable hair shedding.	Ciclosporine, topical tacrolimus
4	22 years old	Female	History of severe alopecia areata, previous alopecia totalis aged 17. Disease relapse was marked by bitemporal hair loss with involvement of the frontal hair line and patchy scalp hair loss.	Systemic corticosteroid, Tofacitinib
5	8 years old	Female	Aged 6 she developed patchy alopecia areata and marked frontotemporal involvement.	Topical minoxidil, clobetasol shampoo



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