

Thionamide-Responsive Alopecia Areata in a 11 Year Girl

Sir,

A 11-year-old girl presented to the endocrinology, with patchy loss of scalp hair, weight loss of 7 kg, palpitations and increased bowel frequency for three months. No family history of similar illness or premature hair loss. She was not on any chemotherapeutic agents or immunosuppressive therapy. No history of hyperpigmentation, osmotic symptoms or loss of appetite. On examination, she had tachycardia (pulse rate - 120/minute), diffuse goitre and few patchy tufts of hair in the frontal, temporal and occipital areas of the scalp [Figure 1a and 1b]. Thyroid hormonal profile revealed free thyroxine (FT4) - 3.6 ng/dl (normal 0.7–1.9), and Thyroid Stimulating Hormone (TSH) - 0.001 μ IU/ml, (normal 0.5–5.0), suggestive of hyperthyroidism. This patient also had high positive thyrotropin receptor antibody (TRAB) - 31.35 U/l (normal <1.5) and thyroid peroxidase antibodies - 483 U/l (normal <34). Thyrotropin receptor antibody level was estimated by using third generation Electro chemi luminescence immunoassay (ECLIA) Roche—Cobas e411 immunoanalyser. She was treated with carbimazole and the dose was titrated according to the thyroid profile reports. The girl was diagnosed with alopecia areata with autoimmune hyperthyroidism (Graves' disease). After six months of carbimazole antithyroid therapy, without any topical agents,

there was a significant improvement in alopecia [Figure 1c] and a significant drop in TRAB level. Both carbimazole and methimazole also have immunosuppressive effects, by decreasing the number of intra-thyroidal activated T cells as well as serum TRAB levels.

Alopecia areata is an autoimmune disorder, which is characterised by patchy hair loss. It is associated with multiple autoimmune disorders like thyroid dysfunction, vitiligo, pernicious anaemia, type I diabetes mellitus, lupus erythematosus, autoimmune polyendocrine syndrome type I and celiac disease.^[1,2] In autoimmune polyendocrinopathy syndrome, organ-specific clinical manifestations may precede, co-exist or follow each other. In the present case, alopecia preceded hyperthyroidism by three years.^[3] Hence, vigilant follow-up is required in all autoimmune disorders.

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Conflicts of interest

There are no conflicts of interest.

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Figure 1: (a) Alopecia areata over the frontal and temporal region in the scalp with patchy tufts of hair. (b) Patchy tufts of hair with alopecia in the occipital regions of the scalp. (c) Improvement in alopecia areata following six months of carbimazole therapy

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