Letter to the Editor

Comorbidities of alopecia areata in infancy and childhood. A small descriptive study in a tertiary hospital in Greece

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Sir,

A small descriptive study in a tertiary hospital in Greece was conducted on the comorbidities of alopecia areata in infancy and childhood.

Alopecia areata is a non-scarring alopecia of autoimmune origin linked also to genetic and environmental factors [1], affecting 2% of the general population and is considered a disease of young adults. Attempts have been made to detect the comorbidities in infants and children suffering from alopecia areata. Sorell Jennifer et al. established a strong association of alopecia areata with atopy, psoriasis thyroid disease, and juvenile idiopathic arthritis [2]. More recently, Comiz et al. [3] added anemia, obesity, vitamin D deficiency, hypothyroidism, vitiligo, psoriasis, hyperlipidemia, and depression to the list of the comorbidities detected in the pediatric population with alopecia areata. The purpose of the study was to detect the comorbidities in infants and children with alopecia areata in an outpatient dermatology clinic during a period of six years from 2013 through 2019. All those examined as outpatients and those hospitalized for several reasons in the pediatric ward who were diagnosed with alopecia areata were included in the study. Laboratory tests, a full blood count, and vitamin D, IgE, and thyroid tests were performed in the laboratories of our hospital. During these seven years, 71 patients were diagnosed with alopecia areata and 7 (approx. 10%) were children. Four (57.1%) were males, and the rest three were females. The males were aged 23 months, and 6-, 7-, and 11-years. The females were 2-, 7-, and 11-year-old. Clinical atopy confirmed by high levels of IgE in the serum was detected in two males and in all three females. Thyroid dysfunction, hypothyroidism, was only detected in one infant associated with atopy; this was in a 23-month-old who at the time of the diagnosis of alopecia areata was hospitalized with severe asthma. Vitamin D deficiency was found in one male patient. A family history of alopecia areata was found in only one male patient. A family history of atopy was reported in only one boy, aged 7 years. A family history of thyroid dysfunction was detected in two males 28%: The 23-month-old infant whose father suffered from hyperthyroidism and the 12-year-old male whose both parents suffered from hypothyroidism. A family history of rheumatoid arthritis was found in one female patient. All patients presented with a mild disease limited to the scalp at the time of diagnosis. No nail pitting was observed, and neither clinical signs of psoriasis, nor of vitiligo. Folliculitis of the scalp preceded the onset of alopecia areata in one of the females (Table 1). Although males comprised 57.1% of our cases, most studies have found a preponderance of females in the pediatric population with AA. Atopy was the most frequent comorbidity (5/7; 70%) and was more frequent in females; all three girls were atopic. The second most frequently found comorbidity was thyroid dysfunction, hypothyroidism., detected in one patient (14%). Vitamin D deficiency was noted in one (14%) patient. A family history of AA was found in one patient as well as a family history of atopy. A family history of thyroid dysfunction was found in two patients (28%). The precipitating factor in our case was staphylococcal infection of the scalp.

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Table 1: Comorbidities in pediatric alopecia areata.

	Atopy	Thyroid dysfunction	Vitamin D deficiency	Family history of alopecia areata	Family history of atopy	Family history of thyroid dysfunction	Family history of rheumatoid arthritis	Precipitating factor
Males	2	1	1	1	1	2	0	0
Females	3	0	o	0	0	0	1	1

Staphylococcus, probably acting as a super antigen, was observed in only one patient (14%). Both atopy and thyroid dysfunction should be sought for in pediatric patients with AA in this order.

Statement of Human and Animal Rights

All the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the 2008 revision of the Declaration of Helsinki of 1975.

Statement of Informed Consent

Informed consent for participation in this study was obtained from all patients.

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