

Case Report

Hyperthyrosis with Alopecia Areata and Perniciosus Anaemia: Case Report

Antigona Begolli Gerqari*¹, Agron Ylli², Idriz Gerqari³, Mybera Ferizi¹, Sadije Halimi¹, Ilir Begolli⁴, Mirije Begolli⁵

¹Dermatology Clinic-University Clinical Center -Prishtina

²Clinic for Internal Disease-University Clinical Center -Tirana

³Nuclear Medicine Department-University Clinical Center –Prishtina

⁴Public Health Institute-Prishtina

⁵Pediatric clinic-University Clinical Center-Prishtina

*Corresponding author

Antigona Begolli Gerqari

Email: antigonagerqari@gmail.com

Abstract: The aim of this case report is to show the link between the autoimmune disease of the thyroid gland and other autoimmune disease in this case perniciosus anemia and alopecia areata. The nine old year boy was referred to us because of the hair loss in areales. We made the complete blood analysis and the hormonal analysis too. The hormones of the thyroid gland show the high level and the presence of high anti TPO was also detected. The blood analysis shows perniciosus anemia. In conclusion, simple screening in a population with alopecia areata, vitiligo, effluvium and other autoimmune disease including perniciosus anemia may result with a positive finding of the autoimmune disease in thyroid gland.

Keywords: autoimmune disease, perniciosus anemia, alopecia areata, thyroid gland

INTRODUCTION

Alopecia areata is an autoimmune disease that results in the loss of hair on the scalp and elsewhere. It usually starts with one or more small, round, smooth patches. It occurs in males and females of all ages and races, but onset most often occurs in childhood. It is estimated that approximately two percent of the population will be affected at some point in their lives, or over 4.5 million people in the United States [1].

CASE REPORT

We present the case of a 9 year old boy referred to the dermatologist with more than one year history of partially lost of the hair diagnosed like alopecia areata. The patient was treated with multivitamins, antibiotics because of the suspicion of infections, and likely with Elidel and combination with topical steroids and some vasodilators. Since the response on the therapy was poor he was referred to us for further treatment. The analysis hormonal analysis shows the high level of T4 (12, 1) and T3 (1, 9) despite low level of TSH(0, 4).The blood analysis shows the perniciosus anemia. The patient was referred to a pediatrician for further treatment.

DISCUSSION

Alopecia areata both with vitiligo is sometimes the initial sign of the autoimmune disease of the thyroid gland. Alopecia areata may be accompanied with vitiligo in 4% of the cases with endocrine disease and autoimmune disease of the thyroid gland in 8% of the cases [2].



Fig. 1: Patient with alopecia areata and hyperthyrosis



Fig. 2: Alopecia areata with hyperthyrosis and perniciosus anaemia

Sometimes it may be accompanied with anemia especially pernicious anemia. This suggests the link between alopecia areata and other autoimmune disease especially autoimmune disease of the thyroid gland.

Hair fall and other variations of the hair fall like alopecia areata and alopecia totalis may be present in all autoimmune thyroid gland diseases. It is more often than alopecia appears as a result of a good respond of the hair follicul. Biloni *et al* detect thyroid receptor beta1 in human pylosebaceal unite in vitro reaction by a chain reaction of transcriptase polymerase [3]. The clinical changes observed are believed to be due to alterations of the anagen/telogen ratio[4]. Eyelash loss has also been reported with hyperthyroidism, responding to treatment of the underlying endocrinologic disease. Loss of axillary hair has also been reported in up to 60% of patients[5]. There is a higher incidence of alopecia areata in hyperthyroid patients as well, especially in patients with autoimmune thyroid diseases. Up to 8% of patients with alopecia have associated thyroid disease[6].

What is corresponding with a literature is connection and companion of the autoimmune disease of the thyroid gland with other autoimmune disease especially with pernicious anemia.

CONCLUSION

The autoimmune diseases often are accompanied with other diseases especially skin disease anaemia and hear fall. The rebalance of the thyroid hormonal status will be joined with a clinical improvement of the skin changes and anemia.

REFERENCES

1. Available online from http://www.naaf.org/site/PageServer?pagename=about_alopecia_faq
2. Yang S, Yang J, Liu JB, *et al*; The genetic epidemiology of alopecia areata in China. *Br J Dermatol.* 2004;151:16-23.
3. Biloni N, Buan B, Guatier B *et al*. Thyroide hormone receptor beta expressed in human hair follicule *Br.J.Dermatol.* 2000;142:645-652
4. McDonagh AJ, Tazi-Ahnini R; Epidemiology and genetics of alopecia areata. *Clin Exp Dermatol.* 2002;27:405-409.
5. Papadopoulos AJ, Schwartz RA, Janniger CK. Alopecia areata. Pathogenesis, diagnosis, and therapy. *Am J Clin Dermatol.* 2000;1(2):101-105.
6. Lewinski A, Broniarczyk-Dyla G, Sewerynek E, Zerek-Melen G, Szkudlinski M; Abnormalities in structure and function of the thyroid gland in patients with alopecia areata. *J Am Acad Dermatol.* 1990;23:768-769.