

Researching Blood Groups of Patients Who Have Alopecia: A Preliminary Study

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Abstract

Alopecia is a common disease. It is not fully known etiology of alopecia but it is thought stress, hormonal disturbance, genetic factors can be more responsible than other reasons. We researched the effects of blood groups on the alopecia patient; can it be the another responsible factor? In this retrospectively study, we looked for ABO blood groups and Rh factor of alopecia patient who are treated in dermatology department of Mersin University Hospital between January 2006 and January 2016. The findings were discussed with respect to literature.

Keywords: Alopecia, areata Blood grouping, Autoimmune diseases, Scalp.

Introduction

Alopecia areata is a form of autoimmune disease and it can be affect both male and female of any age. The disorder is generally characterized by limited alopecic oval patches on the scalp, but more severe forms may affect the all scalp hair (alopecia totalis) or body (alopecia universalis) [1]. In 1900, people were classified into four groups as A, B, AB and 0 depending on their RBC cell membrane contained A and/or B antigens [2,3]. The aim of this study is to determine relationship between alopecia and blood groups.

Case Study

Blood groups of patients who had alopecia and treated in dermatology department of Mersin University between January 2006 and January 2016 were reviewed retrospectively as ABO blood groups and Rh factor. The results were discussed with respect to literature.

The study group involved 100 patients of recurrent aphthous stomatitis. 42 of them were female, 58 of them were male. Among 100 patients with alopecia, most common blood group detected was blood group A, found in 39 patients (39%). 34 of them had A positive and 5 of them had A negative type. Second most common blood group was blood group 0 and it found in 37 patients (37%). 31 of them had 0 positive and 6 of them had 0 negative type. Blood group B was found in 16 patients (16%), B positive in 14 patients and B negative in 2 patient. Blood group AB was found in 8 patients (8%). AB positive in 7 patients and AB negative in 1 patients.

Discussion

Alopecia areata is a form of autoimmune disease. It can be affect both male and female of any age. The disorder is generally characterized by limited alopecic oval patches on the scalp or bears, but more severe forms may affect the all scalp hair (alopecia totalis) or body (alopecia universalis) [1]. It can be association with some diseases such as atopic dermatitis, thyroid disease, asthma, allergic rhinitis and automimmune diseases, such as thyroiditis and vitiligo [1]. Up to now many studies were performed that determine association between blood group and dermatologic diseases that have similar pathogenesis with alopecia areata. In a study by Parvaiz et al. in 98 psoriasis patients 0 blood group was most common blood group but there was no statistically different between control group. In the same study in 76 vitiligo patients B blood group was the most common group as statistically significant [5].

According to another study by Tursen at al. relationship between ABO blood group and skin cancer were investigated, but there was no statistically significant [6]. In various study it was shown that blood group 0 was most common group in gastric and duodenal ulcers, however in a cohort study by Gustaf at al. there was found statistically significant between blood group A and gastric cancer [4,7,8]. In the literature It has not been yet any study about relationship between blood groups and alopecia areata. In our patients with alopecia areata; A blood group was the most common group but there was no statistically significant.

Conclusion

As a result in our study we didn't find any significant association of ABO blood groups with alopecia areata. Also our statistics are very similar to statistics of total population of Turkey. Further studies on blood group antigens in larger series are needed to

determine the relationship between blood group antigens and Alopecia.

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