

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Alopecia Areata of Nonodontogenic Origin.

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ABSTRACT

We report a case of alopecia areata in a 39-year-old female patient. Medical history revealed Hashimoto thyroiditis, while orthopantomogram suggested symptomless periodontal disease (tooth 27) with periodontal pocket 1.2 mm deep. Patient refused tooth extraction and applied minocyclin 4% and clobetasol propionate (Dermovatte) prescribed by a dermatologist. After 4 weeks hair started to regrow, patient refused to take therapy for any longer. We might conclude that stress rather than periodontal disease led to the localised hair loss.

Key words: alopecia areata, periodontal disease, stress induced AA

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INTRODUCTION

Alopecia means hair loss from the head or any other part of the body. There are two types of alopecia - scarring (also known as cicatricial alopecia) and nonscarring alopecia [1]. Alopecia areata is a type of nonscarring alopecia, which is characterized by well circumscribed round or oval areas of hair loss. Lesions are usually found on the scalp, eyebrows, eyelashes, beard or mustache [2]. Currently, the most widely held belief is that AA is an autoimmune disease caused by cellular or humoral immunity directed against anagen hair follicle antigens. AA is sometimes associated with other autoimmune disorders, such as vitiligo, lichen planus, atopic dermatitis, Hashimoto's thyroiditis, hypothyroidism, pernicious anemia, diabetes mellitus and many others. Focal infections, genetic predisposition and environmental triggers also seem to have an important role in its etiology [3,4].

Theory of focal infection gained much attention and had been greeted with great enthusiasm back in the late 19th century. The Theory postulates a myriad of humankind's illnesses caused by microorganisms (bacteria, fungi, viruses) that arise endogenously from a focus of infection [5,6]. A focal infection is a localised or general infection caused by the dissemination of microorganisms or toxic products from a focus of infection, and could also be described as a metastatic infection. A focus of infection may be described as a circumscribed area of tissue infected with pathogenic organisms, and usually causes no clinical manifestations [6]. Suggested oral foci of infection are infected periapical lesions (especially those of chronic nature), teeth with infected root canal and periodontal disease. Most common systemic disorders caused or aggravated by oral foci of infection include arthritis, valvular heart diseases, gastrointestinal, ocular and skin diseases [7, 8].

Gil Montoya et al. [9] together with Zivkovic (10) reported two cases of alopecia areata (AA) with no apparent cause and that was effectively resolved by eliminating a focalized dental infection via endodontic treatment. In this sense, patients with localised alopecia should be subjected to careful exploration of the oral cavity in search of possible dental infections. Romoli and Cudia [11] reported a case of alopecia areata and homolateral headache due to an impacted superior wisdom tooth. After the extraction, the headache disappeared, hair regrew in the alopecic area and in 4 months completely covered the whole area.

Stress seems to play an important role in the onset and aggravation of alopecia areata, mostly with one stressful event before disease onset, reported Manolache and Benea [12]. Recent studies suggest a higher prevalence of alexithymia in patients with alopecia areata (AA). Some authors link alexithymia with the presence of early traumatic events, such as dysfunctional parent-child relationships. However, Brajac et al. [13] concluded that there is no evidence of a significant role of stress in the onset of AA. Life events may play an important role in triggering of some episodes. Broniarczyk-Dyła et al. [14] found among patients with alopecia areata significantly more frequent abnormalities of thyroid structure and function (78%) than in the control group (33%).

CASE REPORT

A 39-year-old woman was referred to the Dept. of oral medicine in Zagreb due to the localised hair loss at right forehead (1,5 cm in diameter). She also suffers from Hashimoto thyroiditis and takes 50 mg of Euthyrox daily (past five years). Additionally during winter time she suffers from sinusitis. At the time she was highly stressed out due to work related problems. Detailed medical history revealed that patient had divorced parents. Orthopantomogram revealed periodontal disease and tooth 27 was firm and symptomless but had periodontal pocket which was 1.2 cm deep. Dentist suggested extraction of the diseased tooth, however the patient refused extraction. All usual blood tests were normal such as complete blood count, iron levels, ferritin and also T3, T4 and TSH were within normal range. Dermatologist prescribed minocyclin 4% and clobetasol propionate (Dermovate) three times a day during 6 weeks. After 4 weeks of therapy, hair started to regrow and patient refused to take therapy for any longer. This case report points out that stress rather than periodontal disease might lead to the localised hair loss.

DISCUSSION

In adult AA patients, Willemsen et al. [15] found no evidence for a significant association between alexithymia and emotional neglect or childhood traumatic experiences. Their results also confirm that alexithymia scores are significantly higher in adult patient with AA compared with control patients.



Willemsen et al. [16] documented an increased history of childhood trauma in patients with AA compared with control subjects. Cordan Yazici et al. [17] found no evidence that stressful major life events, depression, or anxiety have a role in the etiopathogenesis of AA, but AA tended to be associated with alexithymia. The same authors [17] suggested that alexithymia may play a role in the pathogenesis of AA via stress-induced immunological mechanisms. Grahovac et al. [18] described a case of a 58-year-old woman who has been suffering from alopecia areata developed after her husband's death. So far, only ten published cases of alopecia areata due to dental origin could be found on Pubmed

[19-23]. It is usually assumed that dental focal infection is due to periapical lesions or impacted teeth, albeit some authors suggested that periodontal pockets deeper than 6 mm or periodontal disease might also present a focal infection.

CONCLUSION

However, this case report highlights stress induced AA rather than a case of AA due to dental/periodontal causes. Last but not least, the patient should be examined through the interdisciplinary diagnostics and treatment accordingly due to the an integral structure of the mind and body.

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