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Bioscience Research

Print ISSN: 1811-9506 Online ISSN: 2218-3973

Journal by Innovative Scientific Information & Services Network

CASE REPORT BIOSCIENCE RESEARCH, 2020 17(4): 2736-2738. **OPEN ACCESS**

Diet and sleep adjustments attenuate rosacea symptoms: A case report

Hassan Akbari [1, 2] and Neda Tarassoli [3]*

[1]Department of Pathology, Shahid Beheshti University of Medical Sciences, Tehran, **Iran**
[2]Traditional Medicine School, Tehran University of Medical Sciences, Tehran, **Iran**
[3]Iranian Traditional Medicine Doctor, University of Traditional Medicine of Armenia (**UTMA), Armenia**

***Correspondence:** tarassolee@yahoo.com **Received 29-09-2020, Revised: 01-11-2020, Accepted: 10-11-2020 e-Published: 11-11-2020**

Lots of efforts have been made to manage the symptoms of rosacea, which is one of the most prevalent chronic skin disorders; however, this aim has not yet been accomplished completely. Although evidence has addressed several dietary factors as triggers of rosacea, this area has been remained neglected. In this case report, we controlled the diet and sleep of a 50 years old patient and observed significant improvement of rosacea symptoms.

Keywords: Case report; Diet; Rosacea; Sleep.

INTRODUCTION

Rosacea is a common inflammatory skin disorder, involving 0.5% to 10% of the worldwide population (Rohrich et al.2002; Scheinfeld and Rosacea, 2006). The clinical manifestations of Rosacea are heterogenous and the usual course of the disease fluctuates between remission and exacerbation. Up to now, a number of factors have been suggested to have a pivotal role in flaring up the symptoms such as chocolate, cheese, spicy food, tobacco, niacin, etc (Pray and Pray, 2004; Rainer et al., 2015; Shelley, 2001).

Although tremendous advances have occurred in the recent years regarding rosacea management, its precise cure still remains challenging since the available medications are merely useful for symptomatic control (Del Rosso, 2004; Norwood and Norwood, 2007). Currently, the treatments of choice for this condition include a variety of antibiotics, namely topical metronidazole, topical azelaic acid, oral metronidazole, and oral tetracycline (Zuuren and Fedorowicz, 2015). Recently, in order to manage rosacea symptoms, much of interest has been drawn to environmental factors, especially diet (Weiss and Katta, 2017). Therefore, in this case report, we emphasized on the importance of the diet in the treatment the symptoms in a patient with rosacea disorder.

Case presentation

Herein, we report a 50 years-old female who was referred to our clinic at hospital with the diagnosis of rosacea, characterized by several lesions on her nose and forehead, and erythema on chin and cheek for seven years. The lesions were sensitive to heat as thermal exposure had led them to itchy and desquamated conditions. The patient was first diagnosed as acne and underwent a variety of treatments such as oral doxycycline, cephalexin, metronidazole, tetracycline, steroidal ointment, and also laser therapy; nonetheless, none of those was effective enough to clinically attenuate the symptoms. The serological and hormonal tests of the patient were normal, except for thyroid stimulating hormone and fasting blood sugar, which were slightly higher than the normal range.

We recommended lifestyle modification to the patient based on the health triangle. The health triangle is a measure of the different aspects of

health, and consists of physical, social, and mental health. Food management, as a fundamental principle of health triangle, is defined as avoiding several food categories such as fast foods, preserver's materials, pasteurizer's materials, ice creams, artificial refreshments, vegetable liquid oils, white sugar and cub sugar, tea and cold water, common salt, beef, industrial chicken pickles, etc. Besides, honey water, grape syrup, or decoction fluids were replaced with water due to their beneficial effects on patient's temper. Some other actions included topical administration of albumen as well as butter to the facial lesions, tasting salt every 2 hours, and drinking sheep's head and trotters' water every morning for 40 straight days. The patient was instructed to sleep between 9.30 p.m. and 4.30 a.m. in the purpose of sleep adjustment.

Discussion

Rosacea is a prevalent skin disorder, which involves a high proportion of people around the world. It has been reported that the prevalence of rosacea is various among different ethnic groups. This disease is more common among people of young ages (mainly 20 to 40 years old) and female are more susceptible to rosacea compared to the men (Cunliffe and Simpson, 1988). Despite many years of investigation, the pathogenesis of rosacea remains uncertain and a variety of different factors ranging from helicobacter pylori infection to hormonal imbalance attribute to the rosacea pathogenesis; however, there is not any general agreement about the precise pathogenesis of rosacea (Marks, 1968; Moravej, 2007). One possible hypothesis for mediation of such disorders stems from the reduction of cellular energy in the disease course as it gives rise to the dysfunction of sodium/potassium channels. In this regard, providing sufficient energy for the cells might prevent the disease flare up.

So far, an abundant number of triggers have been discovered that are able to exacerbate rosacea symptoms through different mechanisms. Among those, dietary factors are considered as one of the most common triggers according to the patients' reports. Nevertheless, there is a paucity of evidence in this area. Following a survey that was conducted on 400 rosacea patients, 95% of patients who changed their diet experienced a remarkable reduction in the number of flares (Weiss and Katta 2017; Katta, 2018). The most frequent triggers in this study were spices (75%) and hot sauces (54%), respectively. Tomatoes (30%), chocolate (23%), and citrus (22%) were other prevalent triggers. Patients also were affected by liquids such as alcohols (e.g. wine and hard liquor) and hot beverages (e.g. hot coffee and hot tea).

The exact mechanism behind these frequent triggers are not completely understood. There is a possibility that transient receptor potential (TRP) channels, which are expressed on the whole neural tissues of the body, play role in the pathogenesis of rosacea (Gisondi, 2008). These channels could be stimulated by a variety of factors and bring about an increment in the blood flow that consecutively causes flushing and burning (Aubdool and Brain, 2011). It has been shown that some factors could activate TRP channels, including, but not limited to, hot or cold temperature, capsaicin, and cinnamaldehyde. The importance of dietary lifestyle is undeniable since a great number of routine foods contain these materials; for instance, cinnamon, tomatoes, and chocolate contain cinnamaldehyde while spices contain capsaicin (Edson-Heredia, E., et al., 2014).

We sought to modify the diet of the patient and these changes responded successfully. After two months from the first visit, no lesion was detected and the results of these changes were completely satisfactory. Our results showed that although influence of food management on symptoms of rosacea has not drawn much of attention until now, it could be beneficial in terms of symptoms management for patients with rosacea. Finally, due to limited information in this manner, we suggest to conduct further research to clarify the exact place of food management in the management of rosacea symptoms.

CONCLUSION

Since rosacea is highly associated with autoimmune diseases such as multiple sclerosis, rheumatoid arthritis, lupus and the like, it can be concluded that this disease is also an autoimmune disease and due to the inability of the immune system to distinguish between insiders and outsiders. The common treatment is usually corticosteroids that inhibit the immune system, but in our treatment we used the method of increasing the cellular energy of immune cells to eliminate the inability of these cells to distinguish between internal and external genes. And the disease is radically cured and actually cured.

CONFLICT OF INTEREST

The authors declared that present study was

performed in absence of any conflict of interest.

ACKNOWLEGEMENT

Thanks to the patient and her family who worked with us.

AUTHOR CONTRIBUTIONS

HA designed and performleed the experiments and also wrote the manuscript. NT performed data analysis. HA and NT designed experiments and reviewed the manuscript. All authors read and approved the final version.

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