Case Report

Dramatic remission of chronic psoriasis after the treatment of sleep apnea syndrome: An holistic approach of psoriatic disease

Fatima Zahra Elfatoiki[1], Soumia Chiheb[1], Philippe Humbert[2,3]

[1]Department of Dermatology, UHC Ibn Rochd, Casablanca, Morocco, [2]Research and Studies Center on the Integument (CERT), Department of Dermatology, Clinical Investigation Center (CIC BT506), Besançon University Hospital, Besançon, France, [3]INSERM UMR1098, FED4234 IBCT, University of Franche-Comté, Besançon, France

Corresponding author: Dr. Fatima Zahra Elfatoiki, E-mail: Fatiza59@hotmail.fr

ABSTRACT

The prevalence obstructive sleep apnea in patients with psoriasis is significantly higher than in the general population. We report two cases of this association with complete improvement of cutaneous psoriasis after treatment of the sleep disorder. Two males, aged 49 and 69, presented cutaneous psoriasis for several years. They had multiple comorbidities including obstructive sleep apnea. Continuous positive airway pressure therapy was recommended. After a few months psoriatic plaques started to heal without any specific treatment and remission for several years had been observed. There is a correlation between the severity of cutaneous psoriasis and obstructive sleep apnea. It may be beneficial to consider obstructive sleep apnea for each patient diagnosed with psoriasis.

Key words: Comorbidity; Dyslipidemic syndrome; Sleep apnea; Sleep disorders; Psoriasis

INTRODUCTION

Obstructive sleep apnea, even if it is known to be associated with psoriasis, is not yet systematically searched for. We report two cases of this association with complete improvement of psoriasis lesions after treatment based on continuous positive airway pressure.

CASE REPORTS

Case 1

A 49-year old male presented cutaneous psoriasis vulgaris since the age of 24. He had a history of class I obesity and dyslipidemic syndrome. For his cutaneous psoriasis, he'd been treated with topical steroids, ciclosporin 3mg/day, methotrexate 15mg/week and PUVAtherapy without any satisfying improvement. At the age of 35, he presented with severe obstructive sleep apnea with more than 60 events per hour during nocturnal polysomnography. Cutaneous examination showed psoriatic lesions covered a large extent of his body. Continuous positive airway pressure therapy and weight loss were recommended. After 3 months, the number of breathing pauses during sleep started to decline and the psoriasis patches appeared thinner. After 6 months the number of breathing pauses decreased to less than 10 per hour. The healing process of the psoriasis lesions continued and the patient was advised to stop using topical steroid after 7 months from starting continuous positive airway pressure therapy. No psoriasis lesions were noted over a 15 year follow-up.

Case 2

A 69-year old male diagnosed at the age of 42 with cutaneous psoriasis vulgaris. The patient's history of illness describes 3rd grade arterial hypertension, 2nd grade obesity and dyslipidemic syndrome. After

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being diagnosed with psoriasis, the patient received topical steroids with partial improvement of the skin lesions. At the age of 67, he presented severe obstructive sleep apnea with more than 90 events per hour. Clinical examination revealed erythemato-squamous lesions disposed in patches and plaques on the scalp, chest, abdomen, upper and lower limbs. Methotrexate regimen 20 mg per week was added in association with continuous positive airway pressure therapy. After 2 months, the skin lesions start to regress, we decided to decrease the dose of methotrexate to 10 mg per week and then to stop it after 3 months. The clinical outcome after 5 months revealed that breathing pauses decreased to less than 12 per hour with total improvement of the skin lesions.

DISCUSSION

Psoriasis is a chronic inflammatory disease that affects the skin and joints, whereas obstructive sleep apnea is a common sleep disorder characterized by repetitive episodes of partial or complete obstruction of the upper airway during sleep.

There is a significant increase in the prevalence of obstructive sleep apnea (36%-81.8%) in psoriasis patients versus in the general population (2% for women and 4% for men) [1].

Psoriasis can be associated with multiple comorbidities including metabolic syndrome, diabetes mellitus, hypertension, cardiovascular events, obesity and psychiatric disorders, which can all affect the sleep.[1] Furthermore, obstructive sleep apnea shares some risk factors (in common) with psoriasis, such as obesity, smoking and physical inactivity. Besides, this sleep disorder is also linked to the metabolic syndrome [2].

Psoriasis can disturb sleep directly via nocturnal itch and pain or indirectly via systemic inflammation. The inflammatory state in psoriasis contributes to the development of all comorbidities. This systemic inflammation gives rise to sleep-disordered breathing such as obstructive sleep apnea. Inversely, the heightened pro-inflammatory state in obstructive sleep apnea leads to exacerbations of psoriasis [2].

Buslau and Benotmane first described the association between psoriasis and obstructive sleep apnea in 1999 [3]. Other few studies reported this association recently, but these suffer several limitations, especially they were based on a small series of patients without any a control group. The most of these reports conclude that there is a bidirectional relationship between psoriasis and obstructive sleep apnea, and that systemic inflammation is a common denominator for the two diseases. Thus, treating systemic inflammation may improve both diseases [4].

In psoriasis, systemic inflammation and cytokines such as tumor necrosis factor (TNF)-a, interleukin (IL)-1, and IL-6 play an important role and patients with obstructive sleep apnea present increased levels of inflammatory mediators such as TNFa and IL-6. These abnormalities decrease with continuous positive airway pressure therapy which leads to psoriasis lesions resolution [5].

Sleep apnea syndrome should be looked for in every patient suffering from psoriasis. The relationships which can be established between a cutaneous condition and other symptoms or pathological event or disease must be systematically taken into consideration, in term of holistic approach of a patient. Our cases suggest that using continuous positive airway pressure therapy in patients with both psoriasis and obstructive sleep apnea can improve cutaneous psoriasis without any specific treatment for the skin lesions. Despite using effective topical and systemic treatment which may cure skin psoriasis, also cutaneous lesions may have self-remission. The two patients were followed for many years without any result and were never cured of the disease. For both, and for the first time, on a chronological point of view, patients observed a significant improvement of psoriasis, up to complete remission after treating their obstructive sleep apnea. In both patients, and especially in the first case, it is noteworthy that during the relatively long follow up period, there were no psoriasis exacerbations. In second case the interruption of the methotrexate after 3 months is the real proof of continuous positive airway pressure therapy efficiency. Indeed, systemic treatment need more time to get a result.

Finally, physicians attending to patients with psoriasis must bear this association in mind. Further studies involving a large number of patients and performing a long follow-up are necessary to establish the correlation between these two diseases.

Consent

The examination of the patient was conducted according to the Declaration of Helsinki principles.

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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