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Letter

Köebner phenomenon induced by cupping therapy in a psoriasis patient

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Abstract

Psoriasis is a chronic, immune-mediated inflammatory and refractory disease. The koebner phenomenon, which can be induced by trauma, is common in psoriasis patients. Herein, we report a patient with psoriasis who was treated by cupping therapy and subsequently developed the koebner phenomenon (KP) at the cupped sites. To our knowledge, it is the first report about cupping therapy leading to KP in a psoriasis patient.

Key words: Koebner Phenomenon, Cupping Therapy, Psoriasis

Introduction

Psoriasis is a chronic, immune-mediated inflammatory and refractory disease. Although a number of different therapies have been administrated for the treatment of psoriasis, only some of them are effective for particular patients. In China, traditional Chinese therapies, including Chinese herbal medicine, acupuncture, and cupping are sometimes used to treat psoriasis. Herein, we report a patient with psoriasis who was treated by cupping therapy and subsequently developed the koebner phenomenon (KP) at the cupped sites.

Case synopsis

A 40-year-old man had a more than 10-year history of psoriasis. He presented with several round psoriasis plaques on his body five days after he had been given cupping therapy. These round plaques that developed at the cupped sites were the same size as the glass cups used; the boundaries of the lesions were distinct. There were ten round psoriasis lesions on the back, one on the chest, and one on the abdomen (**Figures 1, 2**). Ecchymoses and purpura were visible in the plaques. The patient was given systematic therapy in the form of clarithromycin and topical therapy in the form of clobetasol propionate ointment and tazarotene cream.



Figures 1, 2: Back: ten round psoriasis lesions at the cupped sites on the back. Chest and abdomen: one psoriasis lesions on the chest, one on the abdomen.

Discussion

Cupping therapy belongs to traditional Chinese medicine and has a history of several thousand years of use. It consists of lighting fire to alcohol-soaked cotton at the base of glass cups [1]. After the fire dies out, a vacuum is formed between the skin and the cup. Then the edge of the cup is placed on the patient's skin and the vacuum pulls the skin into the cup. The most common cupping sites are the back, chest, abdomen, and buttocks. Chinese medical practitioners think cupping therapy is effective because it can increase circulation around the area of cupping and eliminate the toxins trapped in the tissues [2]. Some clinical studies also report that cupping therapy may have a positive effect on pain conditions, herpes zoster, symptoms of cough and asthma, acne, the common cold, or other common diseases [3]. Cupping therapy can be an effective therapy for psoriasis patients, but it may be not suitable for patients with unstable psoriasis, like the patient in this case. In our patient cupping therapy did not have a beneficial effect on his psoriasis. Instead, the treatment caused the development of the KP.

Cupping can induce both epidermal cell injury and dermal vascular damage, which are represented by abrasions, ecchymoses, and purpura. Various reports suggest that trauma has to cause both epidermal cell injury and dermal inflammation to produce KP [4], which can be inhibited by vasoconstriction [5] and worsened by unstable psoriasis related to infection [6]. In short, there is no ongoing research on the relationship between cupping therapy and KP, but one hypothesis is that cupping is a form of trauma, inducing patients with unstable psoriasis to develop KP. In addition, studies also show that KP is related to immune factors such as nerve growth factor (NGF), T-cell activation, and fibroblast growth factor (β -FGF) [7,8]. From the perspective of Chinese traditional practitioners, cupping therapy can affect the immune system [9]. More research is needed to understand the underlying relationship between cupping therapy and KP.

Conclusion

The pathogenesis of KP in psoriasis and other diseases is not well understood. This case reports KP related to cupping therapy in a psoriasis patient. To our knowledge, it is the first report of its kind. Attention should be paid to cupping therapy because it is a traditional practice that is widely used by the modern practitioners in China.

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