



A case of Koebner phenomenon caused by friction by a wedding ring in a patient with psoriasis vulgaris

Psoriasis vulgarisli bir hastada alyansa bağlı demonstratif Köbner fenomeni

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Dear Editor;

Koebner phenomenon (KP) was first defined by Henrich Koebner in 1876 on psoriasis disease. KP which is synonym of isomorphic phenomenon is development of dermatological disease, determinately in stimulation site due to traumatic or non-specific stimulation of the skin^{1,2}. It has been observed that it occurred in different frequencies in various diseases since it was first defined. KP was classified in four different categories by Boyd and Nelder in 1990 (Table 1)³. However, the relation of this phenomenon with pathologies like psoriasis, vitiligo and lichen planus is much more substantial. 30 years old female patient presented to our hospital's dermatology outpatient clinic with complaints of redness and scaly non-itching lesions that started 1 month ago and increased progressively, and reaction caused by her wedding ring. According to her history, this was the first time she ever had such lesions, and they started following an episode of flu-like infection. In her dermatological examination, there were numerous erythematous and squamous plaques especially in the trunk and upper extremities, with diameters ranging from 0.1 to 0.5 cm, showing Auspitz and candle sign. Additionally, there was non-symptomatic erythematous and squamous plaque at her right hand ring finger. Its

borders were consistent with the size of patient's wedding ring. Based on the classical diagnostic criteria, the patient was diagnosed with guttate psoriasis vulgaris.

Psoriasis vulgaris is an inflammatory papulosquamous and koebner positive disease of the skin. In psoriasis, the reported incidence of KP varies from 11 to 75%¹. In this disease, true Koebner response exists according to Boyd-Nelder classification (Table 1). KP in psoriasis disease is important



Figure 1. Lesion overlapping with area of wedding ring

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Table 1. Boyd-Nelder classification of the Koebner phenomenon

No	Category	Examples	Comments
I	True koebnerization	Psoriasis Lichen planus Vitiligo	Koebnerization associated with pathogenesis, prognosis and treatment
II	Pseudo-koebnerization	Verrucae Molluscum contagiosum Impetigo	They are due to infectious organisms and represent a seeding of surrounding tissues by trauma
III	Occasional lesions	Darier's disease Hailey-Hailey disease Lichen sclerosis	Production of lesions following trauma has been well described, occurs with traumatic localization of some frequency, and meet some criteria for the Koebner response
IV	Poor or questionable trauma-induced processes	Pemphigus vulgaris Eczema Lichen nitidus	The diseases having little substantiation of a koebnerization

because of its contribution to clinical diagnosis as well as determining the activity and prognosis of the disease⁴.

Various stimulating factors have been reported to start the reaction in pathologies that KP exists. These stimulating factors can be categorized in titles like physical and thermal traumas (surgical incision, friction, bug bites, excoriation, lacerations etc.), dermatoses (Dermatitis, herpes zoster, miliaria, folliculitis, pityriasis rosea etc.), drug reactions (tuberculin skin test, tattoos, influenza vaccination, positive patch testing, scratch skin test etc.) and therapeutics (pulsed dye laser, immunosuppression, ultraviolet light, withdrawal of methotrexate

therapy, high-energy irradiation etc.)⁴. KP develops approximately 2-3 weeks after the stimulation. However, it may show up in a wide time interval that ranges between 2 days and 2 years².

The case was presented as it is informative and it is clinically interesting. Also, as far as we know, this is the first article to report with KP due to a wedding ring in a patient with psoriasis vulgaris.

Ethics

Informed Consent: Consent form was filled out by all participants.

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Authorship Contributions

Surgical and Medical Practices: Yalçın Baş, Konzept: Yalçın Baş, Havva Yıldız Seçkin, Zennure Takcı, Design: Yalçın Baş, Havva Yıldız Seçkin, Zennure Takcı, Data Collection or Processing: Yalçın Baş, Analysis or Interpretation: Yalçın Baş, Havva Yıldız Seçkin, Zennure Takcı, Literature Search: Yalçın Baş, Havva Yıldız Seçkin, Zennure Takcı, Writing: Yalçın Baş.

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