

Case Report

A Case of Pityriasis rosea Following Cosmetic Shaving

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Case

A 25-year-old previously healthy Caucasian male presented to an outpatient family medicine office with a complaint of a pruritic rash extending from his umbilicus down to his proximal thighs. The patient had shaved his abdomen and groin two weeks prior. One week before his appointment, he noticed a single, red, scaly patch on his right lower abdomen, which spread across his lower abdomen about 48 hours before the office visit. On exam, it was noted that the skin had been shaved recently, with clear shaving borders from the umbilicus to the proximal inner thighs. Multiple pink and red oval-shaped lesions with fine central scale in collaret configuration were noted on his abdomen, within the clearly demarcated shaving borders (Figure 1). The rash also involved his proximal medial thighs within the region that had been shaved. Given appearance of a patch prior to the onset of more extensive lesions (herald patch), as well as the characteristic features of the rash, pityriasis rosea was suspected. The patient was sent home with symptomatic treatment. HIV and RPR were ordered and were later confirmed to be negative. The rash resolved two weeks later, supporting the suspected diagnosis.

Discussion

Pityriasis rosea is a benign skin condition of unknown origin, characterized by erythematous, scaly, oval-shaped lesions that usually present on the torso and limbs, but spare the face, palms, and soles. It frequently starts with the appearance of a herald patch, which is a slightly larger oval-shaped, salmon-colored lesion that is most commonly found on the abdomen. The pityriasis rosea rash arises about one week following the herald patch and tends to follow along Langer's lines (cleavage lines) [1]. It is a self-limiting disease and therefore requires only symptomatic treatment. The differential for this type of rash includes secondary syphilis, a drug reaction, nummular dermatitis; tinea corporis's and gut ate psoriasis. Given that the patient had a negative RPR, was not taking any medications or supplements, and was exhibiting the characteristic herald patch with oval-shaped lesions that resolved in two weeks, a clinical diagnosis of

Abstract

Atypical cases of pityriasis rosea are relatively common; however, there are very few reports of pityriasis rosea exhibiting a koebner-like phenomenon. We present a case of a 25-year-old healthy male patient with multiple salmon-colored, oval-shaped lesions on his abdomen, following along the same area which he had previously shaved two weeks prior. The patient was subsequently diagnosed with pityriasis rosea presenting in an atypical pattern. It is proposed that this atypical presentation of pityriasis rosea was a result of a koebner-like phenomenon triggered by the cosmetic shaving, either caused by a latent human herpes virus, the putative cause of pityriasis rosea, which was reactivated by the trauma of the shaving, or by koebnerization of a small herald patch that was present before the patient shaved. In general, the authors recommend that other differentials be excluded before arriving at a diagnosis of atypical pityriasis rosea. Yet, with the increased incidence of cosmetic body depilation, it is in a physician's best interest to keep trauma-induced or koebner-like phenomenon on the differential.

classic pityriasis rosea was made. His rash was atypically confined to the shaved area. Many atypical presentations of pityriasis rosea have been documented. In such cases, the rash appeared on atypical areas of the body (such as the wrists, hands, feet, and mouth) [2-4]. However, upon review of the literature, pityriasis rosea does not generally exhibit clear lines of anatomic demarcation, as demonstrated in this case. Based on this patient's previous history of cosmetic shaving, it is proposed that this case of pityriasis rosea exhibited the Koebner-like phenomenon – the trauma of the razor demarcated the area in which the pityriasis rosea rash appeared.

The Koebner phenomenon is defined as the occurrence of isomorphic lesions after trauma of previously uninvolved skin of patients with known dermatologic diseases. It was first described in 1876 by Heinrich Koebner, a German dermatologist, who observed the development of psoriatic lesions in psoriasis patients after cutaneous trauma [5]. Commonly, there are three diseases that are understood to undergo "true koebnerization": psoriasis, lichen plan us, and vitiligo. In these diseases, the Koebner phenomenon is



Figure 1: Patient with pruritic, salmon-colored, oval-shaped rash consistent with pityriasis rosea. Note the lines of demarcation horizontally at the umbilicus and vertically at the anterior axillary lines bilaterally.

reproducible in many patients and is not due to infective or allergic causes. In contrast, other diseases such as molluscum contagiosum and warts are considered to undergo “pseudo-koebnerization” because their spread to surrounding tissues is due to autoinoculation via scratching. Additionally, there are two other classifications of the Koebner phenomenon: those diseases with “occasional lesions” (e.g. erythematous multiform, granuloma annulare) and those with “questionable trauma-induced processes” (e.g. Pemphigus vulgaris, discoid lupus, eruptive xanthomas). Those diseases exhibiting “questionable trauma-induced processes” are generally based on single case reports [6]. Indeed, there appears to be only one other case report of classic koebnerization of pityriasis rosea. In this case, the patient already had a known diagnosis of pityriasis rosea on her abdomen, which then koebnerized to both antecubital fossa after undergoing blood draws for routine testing [7].

Previous studies have demonstrated that techniques causing epidermal cell injury and dermal inflammation lead to the koebnerization of psoriatic rashes [8]. A few of the many causes of mechanical or thermal trauma that can lead to koebnerization include bites, excoriation, pressure, incisions, and *shaving*. In this case, cosmetic shaving was the catalyst. The act of shaving may result in nicks or micro abrasions that can lead to inflammation and ultimately koebnerization. Interestingly, male cosmetic body depilation has become a relatively new and growing phenomenon over the past 10 years, and has been associated with a variety of skin infections [9]. Indeed, a study by Begier et al showed that cosmetic shaving predisposes athletes to MRSA infections [10]. Additionally, multiple studies comparing preoperative shaving versus clipping demonstrated that preoperative shaving leads to more incidents of postoperative infection, likely due to the damage caused by the razor [11]. Unfortunately, the exact mechanism of the Koebner-like phenomenon as a result of trauma, including shaving, is unknown, although many theories have been postulated.

Even though the pathogenesis of pityriasis rosea is currently unknown, there is a theory that it is a result of Human Herpes Virus 6 (HHV-6) or 7 (HHV-7) infections. HHV-6 and HHV-7 are shed through the saliva, but the initial infection can be congenital, acquired through breast milk, or through contact with the maternal genital tract. As such, it would not be introduced through nicks via shaving [12]. However, it is possible that this patient was exposed to the putative HHV at an early age, where it became latent, and then reactivated in the pattern introduced by the razor, similar to a herpes zoster infection. Another possibility is that the patient already had a small lesion in the area in question that he had not noticed, and the act of shaving allowed the pityriasis rosea to preferentially spread in the traumatized area.

Conclusion

In this case study, the diagnosis of pityriasis rosea was based on the presence of a herald patch as well as the characteristic appearance of the oval-shaped, scaly, erythematous lesions. However, the atypical appearance of pityriasis rosea within the clearly demarcated borders where the patient shaved, led the authors to speculate an explanation. Although there is a paucity of documentation regarding koebnerization of pityriasis rosea, it is plausible that the trauma caused by cosmetic shaving could have triggered pityriasis rosea to directly occur on that surface. In this instance, the rash was restricted to the areas that had been subjected to cosmetic shaving a few weeks prior, and the patient was otherwise healthy and taking no medications. As cosmetic shaving grows in popularity, it is important for clinicians to be aware of possible associated infections and skin conditions.

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