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Keloids after chickenpox in a child

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ABSTRACT

Keloids are abnormal fibrotic scars that result from dysregulated wound healing, often presenting cosmetic and functional challenges. While typically associated with trauma, surgery, or burns, their occurrence following viral exanthems such as chickenpox is rarely reported. We present the case of a 7-year-old girl with skin phototype IV who developed multiple keloids localized to chickenpox scars, three years after recovery and with no family history of keloids. The lesions, asymptomatic and evolving over 18 months, were distributed across the trunk. Given the patient's age and the extent of the lesions, silicone gel sheeting was proposed as a noninvasive first-line treatment. This case underscores the potential for keloid development in response to chickenpox in predisposed individuals with darker skin tones, and highlights the therapeutic challenges in pediatric populations, where treatment options must balance efficacy, invasiveness, and tolerability.

KEYWORDS

Keloids, Chickenpox scars, Pediatric dermatology

MAIN ARTICLE

Introduction

Keloids are abnormal scars that can cause both functional limitations and cosmetic concerns. Despite the wide range of available treatment options, keloids remain difficult to manage. They result from abnormal wound healing in predisposed individuals. These lesions are commonly associated with surgical wounds, burns, or inflammatory skin conditions, and their development following viral exanthems like chickenpox is rarely documented.

Here, we describe the case of a 7-year-old girl who developed keloids three years after recovering from chickenpox, emphasizing the unusual presentation and its implications.

Observation

A 7-year-old girl with skin phototype IV was referred to our hospital for asymptomatic, raised papules on the trunk, evolving over the past 18 months. The patient presented with fewer than 10 keloids of varying sizes, distributed over the anterior chest, abdomen, and flanks (Figs. 1 and 2). Upon further questioning, it was revealed that she had a history of chickenpox three years prior, and the lesions had appeared 18 months after recovery, localized to the chickenpox scars. There was no family history of keloids. Considering the patient's young age, we proposed initiating treatment with silicone gel sheeting.

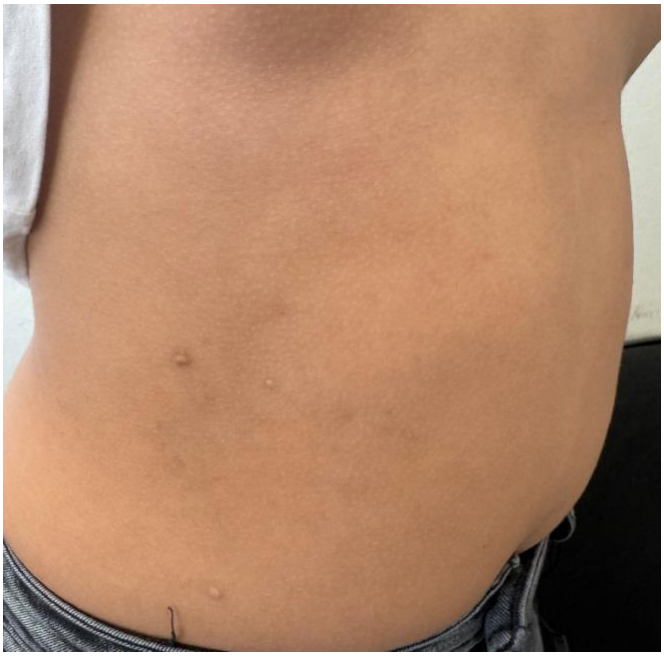

Figure 1: Keloids of the trunk on chickenpox scars.

Figure 2: Close up view of the lesions.

Discussion

Keloids are raised, firm, fibrotic scars that can develop up to 1 year after injury to the skin, sometimes even beyond 1 year, and they do not tend to regress spontaneously [1]. Keloids, which predominantly localize to the upper part of the body, can be disfiguring and may cause pain, pruritus, or even restrict range of motion [2]. Keloids can affect all populations, but they are most prevalent among people with skin of color, with an incidence estimated of 4–16%. Various etiological factors have been suggested, like genetic and hormonal influences [3]. Since the 1960s, chickenpox has been recognized as a rare trigger for keloid formation, with lesions presenting either as small eruptive keloids or large, severe formations localized to chickenpox scars. Dermatologic sequelae of varicella have received little attention in the literature, despite their impact on affected individuals [2]. Unfortunately, keloids do not regress spontaneously and are often refractory to treatment [3]. Most keloid treatments come with significant limitations. Radiation carries a carcinogenic risk, laser therapy is expensive, and surgical excision often delays recurrence without providing a definitive solution [2]. Among the various treatment options for established keloids, bleomycin infiltration has shown promising results in recent studies, particularly in resource-limited settings [3]. However, such intralesional therapies may not always be suitable for children due to pain or fear of injections. Therefore, we proposed a noninvasive alternative using silicone gel sheeting.

Conclusion

This case highlights the challenges faced by individuals with darker skin tones who are at increased risk of developing keloids and the associated cosmetic impact [4]. It also underscores the complexities of managing keloids in young children, particularly when the lesions are distributed across multiple areas of the body.

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