Dermatology Case Reports

AL Hamzawi et al., Dermatol Case Rep 2018, 3:1

Case Repot Open Access

Tragic Teenage Boy Presenting With Calluses Due to Dermatophagia

Nabeel K. AL Hamzawi[1*] and **Adil A. AL Zaidi**[2]

[1]*Department of Dermatology, Diwaniyah Teaching Hospital, Iraq*

[2]*Department of Psychiatric, Diwaniyah Teaching Hospital, Iraq*

[*]**Corresponding author:** AL Hamzawi NK, Department of Dermatology, Diwaniyah Teaching Hospital, Iraq, E-mail: alhamzawi_n@yahoo.com

Received date: April 26, 2018; **Accepted date:** June 15, 2018; **Published date:** June 20, 2018

Abstract

Callus due to dermatophagia has rarely been reported in dermatology literature. Patients with this disorder usually present with skin damage, bleeding, blistering and discoloration, especially around the fingernails. Moreover, the presence of callus on the dorsum of proximal phalanges has also rarely described in the literature of PubMed, Google Scholar and Research Gate.

We hereby describe a 16-year-old boy with bilateral calluses, on the dorsal aspects of the proximal phalanges of the forefingers. General physical examination revealed that the patient had a mental illness and a habit of biting his fingers at the affected sites for two years. We performed this report to emphasize the importance of the relationship between dermatophagia and calluses presenting on the dorsum of the proximal phalanges of the fingers as calluses are most often located on the feet and knuckles of the hands. Therefore, any patient experiencing a similar lesion to the one in our case needs a proper history taken and assessment of mental state to exclude associated psychiatric comorbidity.

Keywords: Callus; Dermatophagia; Obsessive-compulsive disorder; Forefinger

Introduction

A callus is a localized, firm thickening of the outer layer of skin as a result of repetitive friction or pressure. It is usually observed in areas of skin such as the palms and soles that are subjected to continual rubbing [1]. Dermatophagia is an obsessive-compulsive disorder, wherein patients bite their skin around the nails in a hasty manner [2]. They also chewed inside the mouth, cheeks, and lips causing blisters in and around the mouth [3]. Obsessive-compulsive disorder (OCD), a common chronic condition, often associated with marked anxiety and depression, characterized by "obsessions" and "compulsion."

Obsession and compulsion must cause distress or interfere with personal social or individual functioning, and should not be the result of another psychiatric disorder [4-7].

The patient feels relief after biting the skin for some before he or she gets anxious again and starts to eat the skin back [8]. The clinical signs of dermatophagia included skin damage, bleeding, infection, calluses, and hangnails. Treatment consists of cognitive behavioral therapy and medical treatment including antidepressant drugs [9]. Here we have described a case of calluses on the hands associated with psychiatric comorbidity needs to be explained in light of the previous literature.

Case Report: A 16- year-old boy brought by his family, to the private medical clinic, where he had chronic, asymptomatic hyperkeratotic plaques on both hands, which had slowly increased in size, for one year. (Figures 1 and 2) No other skin lesions elsewhere were present. There was no associated systemic symptoms nor was a relevant family history. His family mentioned that his father was killed by the militants of the Islamic state, in Mosul, a major city in northern Iraq, two years ago. For this tragic event, the boy left school and his mental state and behavior began to change. After a short period, he began to bite his fingers harshly at the affected sites, and sometimes he chewed them as an expression of his tense situation. Skin examination, showed Well-defined bilateral plaques that were dark-brown in color, measuring 1.5 cm in diameter, and were located on the extensor surfaces of the proximal phalanges of the forefingers. On close inspection using a magnifying lens, the lesion had a rough surface with thick adherent brown scales. General physical examination showed that the patient had a mental illness, with abnormal behavior, attitude, and cognition. The diagnosis was calluses due to dermatophagia. The lesions were treated with topical keratolytic and moisturizing ointment. As the condition was a sign of obsessive-compulsive disorders, the patient referred to the psychiatrist for assessment of his mental state, psychiatric morbidity, treatment and follow up as a part of the therapeutic team.

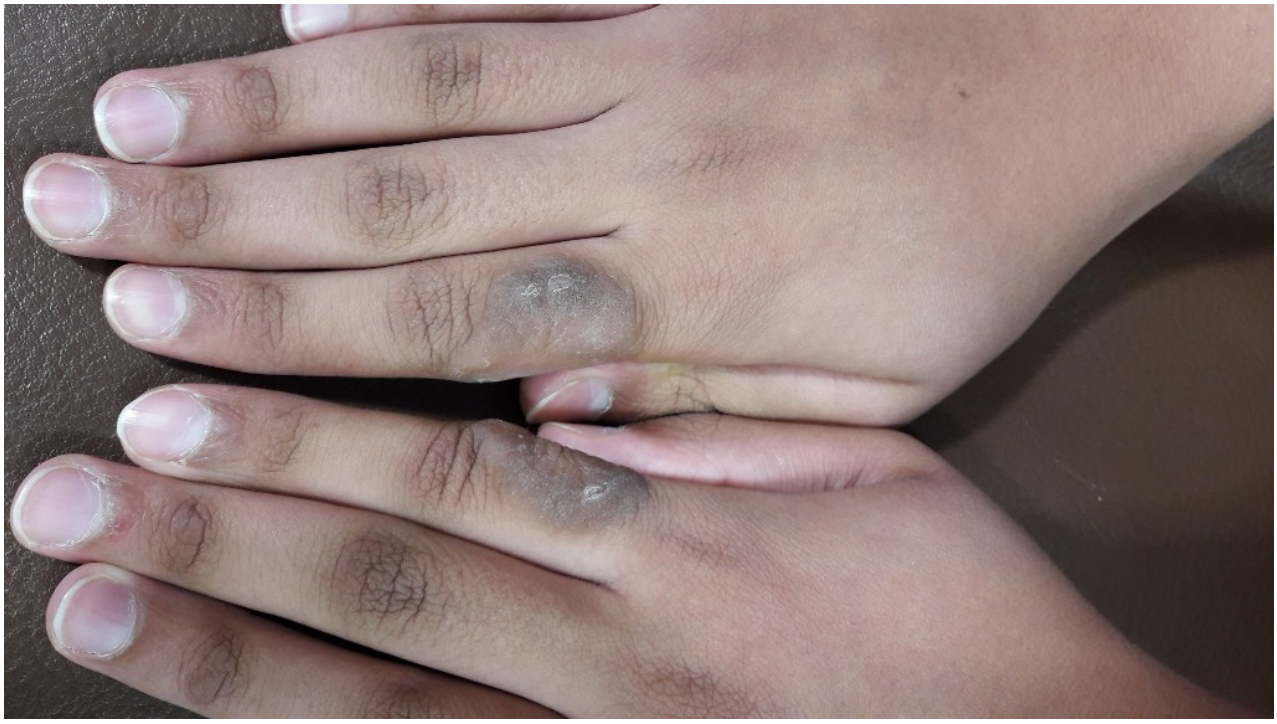

Figure 1: Bilateral calluses on the dorsal aspect of the forefingers in a 16-year-old boy.

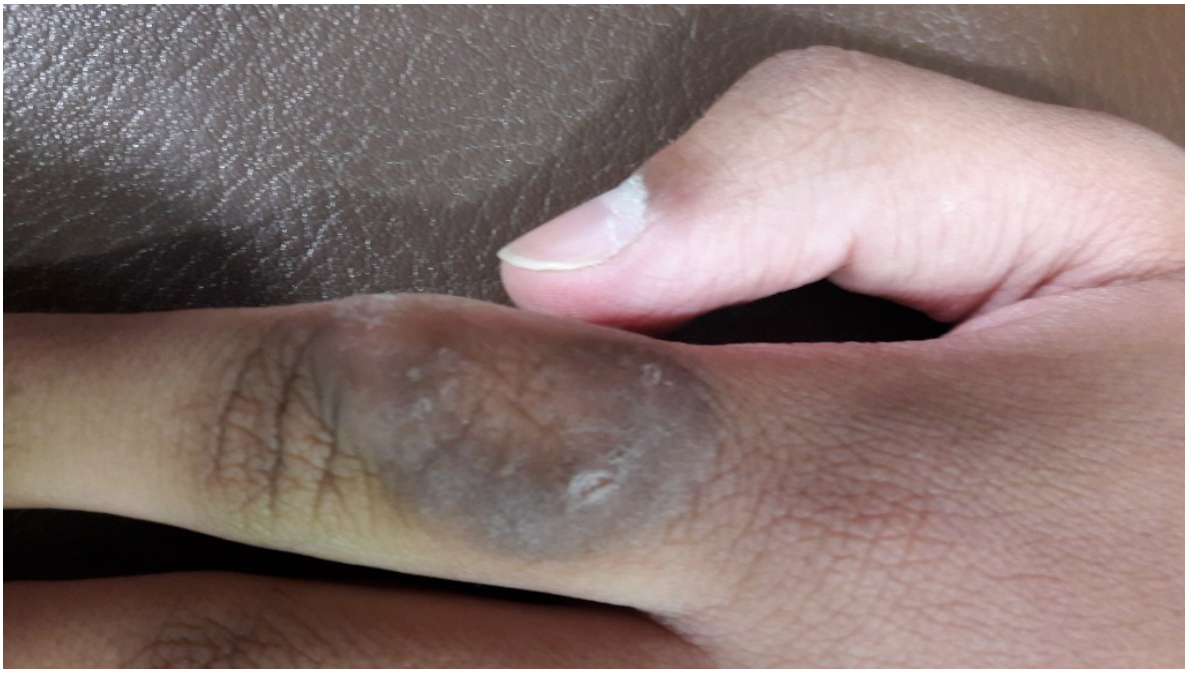

Figure 2: Close inspection using a magnifying lens showed a plaque with brownish hyperkeratotic scales.

Case Discussion

We present a 16-year-old boy with calluses due to dermatophagia. The lesions presented as hyperkeratotic, brown-colored plaques on the dorsal aspects of the forefingers. They are bilateral and symmetrical in distribution. The boy had a mental illness and problems related to his behavior, mood, and cognition. We performed a literature search on PubMed, Google Scholar, and Research Gate with the search term

"callus and dermatophagia". We found only one report with calluses on the knuckles of both hands. The case was a teenage boy who had a habit of intermittent biting of his knuckles. According to his father, the boy's behavior was normal and his school performance was satisfactory [3].

Dermatophagia is the urge to bite the one's own skin, most commonly at the fingers and sometimes inside the mouth. The target areas that usually attacked by the patient are the nail folds, hangnails and cuticles as they can easily be destroyed by biting. Whether biting and ingesting or only biting is a matter related to the severity of a stressful situation of the patient and the presence of psychiatric comorbidity. Biting and ingesting draw attention to severe reactions to stressful states and are limited to the more easily damaged sites of the skin such as around the nails, especially the nail spurs. Therefore, biting and eating usually presented with ulceration, infection and even bleeding. While in case of biting alone, the reaction is mild and the patients preferred to choose other sites such as the dorsum of phalanges and joints and in most, callus is the prominent sign. In the current case, however, the patient repeatedly bites the dorsum of the proximal phalanges of his forefingers. Still, there was no wound or ulceration at the bitten site. The pathogenicity of callus, in this case, was due to habitual biting (chronic friction) without ingestion, which leads to accumulation of excess keratinous scales. This explained the tense situation the patient had under certain circumstances, although, he had an abnormal behavior and mental state. Through the follow-up, the skin lesions improved after two weeks of treatment with topical keratolytic, and regular visits to the psychiatrist are scheduled to treat his mental illness.

Conclusion

The present case raises the suspicion of the relationship between callus that occurs on the dorsum of the proximal phalanx of the forefinger and dermatophagia. A proper history is required, and only then should the patient referred to the psychiatrist for further assessment of mental health problems.

References

1. Kim SH, Kim S, Choi HI, Choi YJ, Lee YS, et al. (2010) Callus formation is associated with hyperproliferation and incomplete differentiation of keratinocytes and increased expression of adhesion molecules. Br.J Dermatol. 163: 495-501.
2. Grant JE, Mancebo MC, Eisen JL, Rasmussen SA. (2010) Impulse-control disorders in children and adolescents with obsessive-compulsive disorder. Psych Res. 175: 109-113.
3. Al Hawsawi K, Al Aboud K, Ramesh V. (2003) Dermatophagia simulating callosities. Dermatology and Psychosomatics/Dermatologie und Psychosomatik. 4: 42-43.
4. Semple D, Smyth R, (2013) Oxford handbook of psychiatry. OUP Oxford.
5. Cowen P, Harrison P, Burns T. (2012) Shorter Oxford textbook of psychiatry. Oxford University Press.
6. Kuhn H, Mennella C, Majid M, et al. (2017) Psychocutaneous disease. J American Acad Dermato 76: 779-7791.
7. Jafferany M. (2007) Psychodermatology: a guide to understanding common psychocutaneous disorders. Primary care companion to the J Clin Psy 9: 203.
8. Pramod Kerkar (2016) What is dermatophagia, epain Assist Inc.
9. Morand-Beaulieu S, O'Connor KP, Richard M, Sauvé G, Leclerc JB, et al. (2016) The impact of a cognitive–Behavioral Therapy on event-related Potentials in Patients with Tic Disorders or Body-Focused repetitive Behaviors. Front. Psychiatry 7: 81.