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Journal

Dermatology Online Journal, 23(4)

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Publication Date

2017

DOI

10.5070/D3234034651

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Bidet nail syndrome: report of a typical case

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Abstract

Worn-down nail syndrome is a nail disorder characterized by thinning of the distal nail plate induced by repetitive mechanical trauma. A French variant, entitled “bidet nail syndrome” was first described by Baran.

Keywords: worn-down nails; nails; onycholysis

Introduction

Worn-down nail syndrome is a nail disorder characterized by thinning of the distal nail plate induced by repetitive mechanical trauma. A French variant, entitled “Bidet nail syndrome” was first described by Baran in three women in whom the distal portions of nail plates were worn down by frequent rubbing of the nails against the porcelain of the bidet [1]. We report the case of a man with a typical presentation of bidet nail syndrome.

Case Synopsis

A 33-year-old male aeronautical mechanic presented with asymptomatic distolateral onycholysis of the free margin of the last three fingers of the right hand present for several years. On examination, these nails showed a lateromedial triangular defect of the distal free margin with nail thinning and redness of the nail bed. The margins of this triangular area were marked by a thin whitish line (**Figure 1**). The nail plate of the index finger showed a larger defect without onycholysis.

A diagnosis of worn-down nail syndrome was proposed and the patient was asked to identify any repeated behavior that could induce trauma of the



Figure 1. Lateromedial triangular defect of the distal free margin with nail thinning and redness of the nail bed of the last three fingers of the right hand.

nails concerned.

When the patient returned three and a half months later, he reported that he washed his hands ten times a day and then dried the washbasin with a towel in a circular motion with the back of his right hand. Discontinuation of this repeated trauma allowed complete recovery in 3 months (**Figure 2**).

A clinical diagnosis of worn-down nail syndrome, and more specifically “bidet nail syndrome”, was proposed owing to repeated rubbing of the nails against porcelain.

Case Discussion

Worn-down nail syndrome is a broad term used to describe worn down nails induced by repetitive mechanical trauma. This term was introduced in 1999 by Baran and Moulinis who were the first to describe a variant called “bidet nail syndrome” in three patients



Figure 2. Discontinuation of the repeated trauma allowed complete recovery in 3 months.

with dystrophy of the middle three fingernails of their dominant hand [1]. Clinically, the nails showed a triangular area of marked thinning with its base lying at the free margin of the nail. All of these women suffered from behavioral disorders with excessive cleanliness (concerning genital hygiene), resulting in trauma owing to constant and repeated rubbing of the nails against the smooth surface of the bidet.

Worn-down nail syndrome is typically caused by mechanical trauma following direct and repeated rubbing of the nails against a hard smooth surface. It predominantly affects people with chronic scratching or manual workers. Clinically, the nails present progressive triangular thinning of the distal nail plate with its base on the distal free margin. The nail becomes shiny, worn distally with erythema of the nail bed owing to inflammation. Alterations are reversible after discontinuation of the cause.

Since the first description, five publications have reported cases resembling worn-down nail syndrome. Piraccini et al. reported in 14 patients that the nails can be worn down by repeated rubbing against a surface [2]. Worn-down nail syndrome was diagnosed in seven patients: one of them habitually rubbed his nails on his right thigh when nervous and six of the other patients were tailors who reported rubbing their nails against cloth while sewing. The remaining patients denied any rubbing of their nails against surfaces or any other activity that could be responsible for worn-down nail syndrome.

Patrizi et al. reported the case of an 8-year-old girl who rubbed her nails against her desk [3]. Two other atypical cases of “worn-down nail syndrome” have been attributed to nail rubbing after application of topical antifungal nail lacquers, or trauma from nail filing after acrylic nail removal [4, 5]. Recently, a case of worn-down nails affecting the great toe nails was attributed to repeated rubbing of both great toes in tight shoes [6].

The pathophysiology remains unclear, but repeated rubbing of the nails against a hard and smooth surface causes progressive thinning and a defect of the distal nail plate. Involvement of the nail bed is characterized by erythema or splinter hemorrhages visible on dermoscopy related to inflammation and trauma. In view of the various etiologies, worn-down nail syndrome appears to be a more appropriate term to describe this nail disorder.

Clinical interview and physical examination - demonstrating the site of worn-down nails affecting certain fingers on the dominant hand - often allow retrospective diagnosis of this syndrome. A normal and apparently harmless movement is often responsible: the patient does not realize that he or she is the cause of the injury and does not immediately identify the cause at the time of diagnosis. In the case reported here, the diagnosis of worn-down nail syndrome suggested at the first visit allowed the patient to understand the origin of the lesions; the only possible cause was repeated wiping of the washbasin with the back of his right hand.

We report a new case of bidet nail syndrome as first described by Baran et al. This patient’s behavior was responsible for the nail lesions observed. There is no specific treatment; elimination of the causative phenomenon is the key to healing. The patient’s awareness of the behavior, nail clipping, and increased protection allowed complete resolution.

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