

ONYCHOLYSIS DUE TO TRAUMAPatricia Chang¹, Monica Vanesa Vásquez Acajabón²¹*Department of Dermatology, Hospital General de Enfermedades IGSS and Hospital Ángeles, Guatemala*²*Hospital General de Enfermedades IGSS and Hospital Ángeles, Guatemala***Source of Support:**

Nil

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None

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Female patient, 35 years old who came to the private office due to discoloration of her left thumbnail and little pain since 1 month ago.

Clinical examination shows nail disease on her left thumbnail with onycholysis and dyschromia, dermatoscopy showed white-yellowish discoloration (Fig. 1A, B).

The rest of the clinical examination was normal.

Patient use to using acrylic nails since 2 years ago and denied some trauma at the nail.

The diagnosis of onycholysis due to trauma was done and recommended her not to use acrylic nail, maintain the nail short and avoid wetness.

Onycholysis is the detachment of the nail from its bed at distal end or/and its lateral attachments [1,2]. The pattern of separation sometimes resembles the damage from a splinter under the nail, extending proximally along a convex line, giving the appearance of a half moon. Normal physiologic onycholysis is seen at the distal free margin of healthy nails as they grow. It is more frequently seen in women, particularly in those with long fingernails [3-7].

Usually the nail acquires a grayish tone -with coloration due to the presence of air under the nail, but the color may vary from yellow to brown depending on the etiology. In fungal infections and psoriasis, there is usually a yellow margin between the pink normal nail and the white separated area, due to the accumulate of serum like exudates [1,3]. Green discoloration indicates the presence of pseudomonas. Red discoloration is typical for drug-induced onycholysis or photoonycholysis [6].

Involvement of the lateral edge of the nail alone is less common [1]. Onycholysis creates a subungual space that gathers dirt and keratin debris. Water accumulates beneath the nail plate and a secondary infection by yeasts or bacteria may occur [1,2]. When the process reaches the matrix, the onycholysis is complete [1]. It can be primary (Idiopathic) or secondary. The onycholysis primary is painless and occurs without an apparent cause; generally the affected nail grows quickly, and returns to its normal state/condition after a few months. Pain occurs if the

detachment is caused by a trauma or an infection supervenes (Fig. 2A -C). The secondary one can be classified into: dermatological causes, drug-induced (Fig. 3A - D) (the most frequent cause [5]), systemic, onychomycosis (Fig. 4A - G), others cause (Fig. 5A, B) [2].

Numerous dermatologic conditions may cause onycholysis, as lichen planus and psoriasis (Fig. 6A, B) [1,2]. Other causes can be neoplasm, inflammatory skin diseases, thyroid disease, pregnancy, anemia and allergies [7].

In the drug-induced kind/type/one the onset of this disease may be sudden, as in photoonycholysis, where there may be a triad of photosensitization, onycholysis and dyschromia [1]. In this affection, the lateral margins of the nails are never involved and thumbs are rarely affected. The nail is tender and painful in tetracycline or psoralen-induced photo-onycholysis [2]. Tetracycline, aripiprazole, olanzapine and chemotherapy with docetaxel and paclitaxel can cause onycholysis or photoonycholysis [3,4].

Onycholysis may also appear in persons who come into contact with chemical irritants such as nail polish, nail wraps, nail hardeners and artificial nails. Also the frequent contact with water can cause this disorder. Traumatic onycholysis can be caused by a lack of appropriate nail care on the toenails, common trauma

(Fig. 7A - G) tight and high heel shoes (Fig. 8A - C). In hands the habitual finger sucking or the use of fingernails as a tool can induce onycholysis (Fig. 9A, B) [7].

The goal of the management is to keep the growing nail attached, and include keeping the nails dry and clipped short, sparingly use of nail polish [7], meticulous nail care and possible use of topical antifungal [1]. It is necessary treat the underlying cause if there is one, and to avoid contact with irritant substances, traumas or the wetness (Fig. 10) [3,7]. The photoonycholysis resolve spontaneously [3], with the complete recovery within 3 to 4 months after the suspension of the responsible drug. Nevertheless it could evolve to a partial or complete nail dystrophy [5].



Figure 1A and B. Onycholysis on left thumbnail due to trauma.



Figure 2A - C. Onycholysis due to sub ungueal infection.



Figure 3 A. Panoramic view of fingernails due to docetaxel female breast cancer. B. Close up of nail lesions onycholysis and Beau's lines due to docetaxel female breast cancer. C and D. Clinical and dermoscopic nail changes due to docetaxel female breast cancer.



Figure 5 A and B. Onycholysis due to pincer nail. C. Onycholysis due acrylic nails.



Figure 4 A - G. Onycholysis due to onychomycosis.



Figure 6. A and B. Onycholysis due to psoriasis.

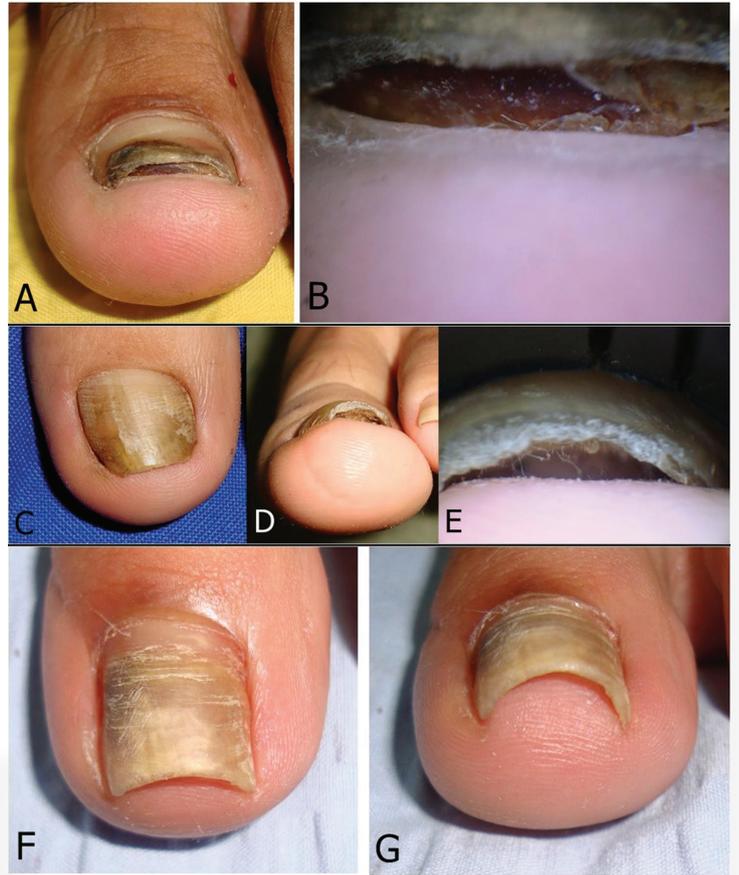


Figure 7. A - G. Onycholysis due to trauma foot ball soccer.



Figure 8. A - C. Onycholysis due to tight and high heel shoes.

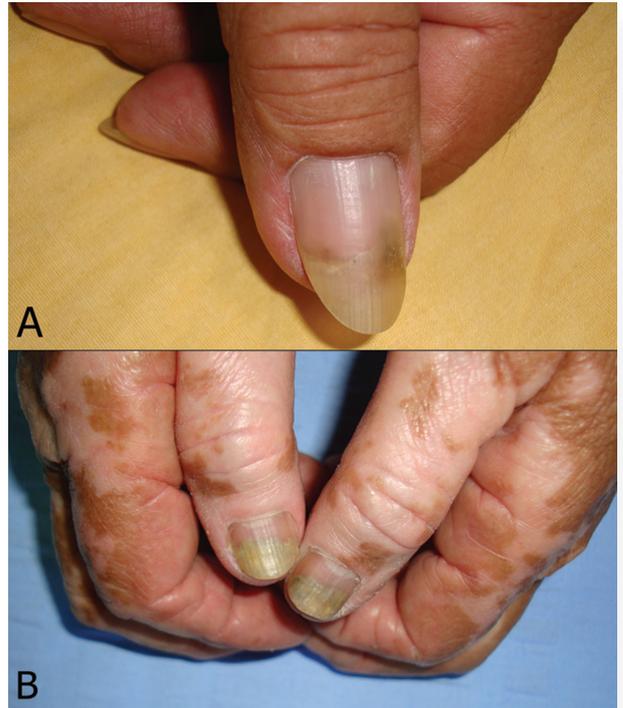


Figure 9. A and B. Onycholysis due to use fingernails as tools.



Figure 10. A and B. Onycholysis due to minor trauma.

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