CASE REPORT

Resolution of retronychia with the Dubois technique: A case report

Gladys Katiuska Castillo Soto

* *Resident Physician in Dermatology, Universidad Tecnológica Equinoccial, Quito, Ecuador*

Research conducted at the Armed Forces Specialties Hospital

Correspondence:
gladycastill@hotmail.es
0009-0007-2942-5300

Key words: onychocryptosis, retronychia, Dubois technique

Reception date: 12/07/2024
Acceptance date: 29/10/2024

SUMMARY

A case of proximal onychocryptosis, also called retronychia, is presented, which is considered a rare entity that generally develops after chronic paronychia. This is a female pediatric patient treated at the Armed Forces Specialties Hospital No. 1 (HE1), without apparent cause, who presents redundancy of the proximal fold with the absence of growth of the first nail plate of the right foot, which was resolved using the Dubois technique.

INTRODUCTION

Onychocryptosis affects 20 out of every 100,000 people, representing 20% of foot problems, with a male-to-female ratio of 3:1 among those aged 15 to 40 years. This condition develops when a border of the nail, whether lateral or distal, penetrates the adjacent skin fold and acts as a foreign body, causing edema, erythema, pain, and infection of the affected area.[1,2]

There are two types of onychocryptosis:
Lateral: This is the most common type, occurring when the nail penetrates one or both sides.
Anterior: This is less frequent and occurs when the nail grows into the skin at the front; it is referred to as retronychia.[3]

Retronychia is a term coined by Dr. Berker to refer to the embedding of the proximal fold of the nail plate, which occurs following recurrent paronychia. The term derives from the Latin "retro" (meaning backward) and "onychia" (meaning nail).[4]

Onychocryptosis causes significant discomfort to the patient, and depending on its stage, it may resolve clinically or require surgical intervention(5). Four stages of the disease have been established:
Stage 1: Presence of edema, inflammation, and pain.
Stage 2: Presence of superinfection and suppuration.
Stage 3: Formation of exuberant granulation tissue and laminar hypertrophy.
Stage 4: Progression from stage 1 with severe and chronic nail deformity, affecting both periungual rolls and the distal roll.

The most effective procedure for resolving this pathology is matricectomy. In cases of lateral onychocryptosis, surgical resolution is indicated in a few instances where the distal part is compromised, such as with the Dubois technique.[6]

The Dubois technique is performed using the following steps:

1. Asepsis of the toe with iodinated alcohol.
2. Truncal anesthesia with 2% lidocaine without epinephrine.
3. Placement of a tourniquet.
4. Incision of the distal fold in a wedge shape of less than 1 cm until reaching the subcutaneous tissue.
5. Suturing with 3-0 mononylon thread, using simple stitches.
6. Covering with a dressing.

CLINICAL CASE

A case is presented of a female patient, 8 years old, with no significant clinical or surgical history. She presents to the outpatient clinic, where her mother reports that the first toenail of the right foot has not grown for the past 5 years and that she occasionally experiences pain. On physical examination, a dermatosis affecting the first toe of the right foot is observed, with slight redundancy of the distal fold and a shortened nail plate.

DISCUSSION

The pathology of retronychia, characterized by redundancy in the distal fold of the nail, inhibits normal nail growth and may occasionally cause it to ingrow at this distal end, resulting in pain, edema, and aesthetic alterations. Compared to its counterpart, the surgical approach using the Dubois Technique allows for the removal of excess soft tissue, creating space for the release of the nail plate and subsequent growth. This technique is performed in an outpatient setting with immediate recovery and no future recurrences.

CONCLUSION

The diagnosis of this pathological entity is clinical. The Dubois technique is curative, simple, and cost-effective; it allows for the release of the redundant distal fold that hinders the normal development of the affected nail. Our patient has had two years of evolution without recurrence.

Figure 1. Redundancy of the distal fold and shortening of the first nail plate.

Figura 2. Dubois technique.

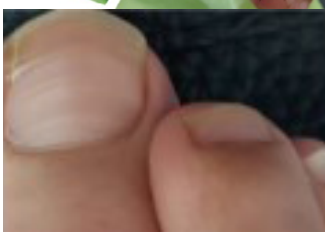

Figura 3. One year after the surgical procedure, normal nail growth is observed.

REFERENCES

1. Merino J, García S. Onychocryptosis with cutaneous bridge. Surgical management. Rev Cent Dermatol Pascua. 2012; 21 (2): 69-73.
2. Correa J, Magliano J, Agorio C, Bazzano C. U-shaped excision for onychocryptosis. Rev Actas Dermosifiliogr. 2017; 108(5): 438-444.
3. Márquez S, Lafuente G, Domínguez G. Conservative studies on onychocryptosis. Narrative literature review. Rev Esp Podol. 2018; 29(1): 34-42.
4. Iquierdo M, Rosell M, Miralles S. Proximal onychocryptosis: retronychia. Spanish Journal of Podiatry. 2013; XXIV (4): 170-171.
5. Zavala K, Gutiérrez F, Bozalongo E. Management of onychocryptosis in primary care. Clinical case. Rev Semergen. 2013; 39(6): 38-40.
6. Refkalefsky-Loureiro W, Gioia-Di Chiacchio N, Di Chiacchio N. Nail surgery. Rev Soc Peruana de Dermatología. 2011; 21(4): 167-183.