Ultrasonographic diagnosis of “Harpoon Nail”

Ultrassonografia no diagnóstico da “unha em arpão”

DOI: http://www.dx.doi.org/10.5935/scd1984-8773.201911410

ABSTRACT

The “harpoon nail” is a variant of the ingrown toenail. In this condition, the nail spicule pierces the distally growing periungual tissue and may emerge through the hyponychium. Its diagnosis can be confirmed by high-frequency ultrasound, facilitating the therapeutic programming.

Keywords: Dermoscopy; Nail diseases; Onychomycosis

RESUMO

A unha em arpão, variante de unha encravada, caracteriza-se por perfuração do tecido periungueal por espícula ungueal, que cresce distalmente, podendo emergir através do hiponíquio. Seu diagnóstico pode ser confirmado por ultrassonografia de alta frequência, facilitando a programação terapêutica.

Palavras-Chave: Dermoscopia; Doenças da unha; Onicomicose

“Harpoon nail” is a variant of ingrown toenail1 (Figure 1A). The etiology is similar to that of onychocriptosis and can be secondary to over-curvature of the nail plate or hypertrophy of nail folds, resulting in distal ingrowth.1,2 Inadequate trimming of the nails to relieve the pain results in the formation of a lateral spicule that grows distally, covered by the skin, perforating it at the tip of the toe and emerging through the hyponychium (Figure 1B).

The clinical picture is similar to that of onychocryptosis, associated with an erythematous-edematous papule and hematoc crust in the hyponychium (Figure 1A). In the absence of treatment, the canal that contains the spicule may epithelize and the inflammation may disappear, leading to the chronic form.2 High-frequency ultrasound is a noninvasive imaging method that is useful in the diagnosis of harpoon nail. The following ultrasound findings are possible in the diagnosis of harpoon nail:

1. Hospital das Clínicas. Universidade Estadual de Campinas, Campinas (SP), Brazil.
2. Centro Avançado de Diagnóstico por Imagem Osteomuscular do Group Fleury, São Paulo (SP), Brazil.
3. Dermatology Clinic, Hospital do Servidor Público Municipal de São Paulo, São Paulo (SP), Brazil.
4. Faculdade de Medicina do ABC, Santo André (SP), Brazil.

Correspondence:
Cristina Diniz Borges Figueira de Mello
Rua Vital Brasil, 251
Cidade Universitária
13083-888 Campinas (SP), Brazil
E-mail: dracristinafigueira@hotmail.com

Received on: 28/11/2019
Approved on: 14/12/2019

Research performed at Hospital do Servidor Público Municipal de São Paulo, São Paulo (SP), Brazil.

Financial support: None.
Conflict of interests: None.
Characterization of ingrowing nail plate, in a comparative study with the normal toe, highlighting the hypoechoic soft tissues adjacent to the nail plate (Figure 2A) with or without vascularization on Echo Doppler.

Identification of the hyperechoic spicule in communication with the nail plate (Figure 2B), located in the subcutaneous tissue of the nail fold and the hyponychium (Figure 2C), surrounded by a hypoechoic inflammatory halo with or without increased vascularization on Echo Doppler (depending on the inflammatory activity).

Characterization of periungual or subcutaneous hypoechoic or anechoic collections with hemorrhagic and/or purulent content.

High-frequency ultrasound in experienced professional hands proves to be a valuable tool for ruling out possible differential diagnoses of harpoon nail (e.g. onychoclavus, inclusion cyst, etc.), confirming the diagnosis and facilitating surgical programming.

REFERENCES


AUTHORS’ CONTRIBUTIONS:

Cristina Diniz Borges Figueira de Mello  | ORCID 0000-0001-7199-8451
Case submission; writing of manuscript; final revision; overall revision.

Milena da Rocha e Souza  | ORCID 0000-0002-0732-0432
Case submission; writing of manuscript; final revision; overall revision.

Nilton Gioia Di Chiacchio  | ORCID 0000-0001-5944-7737
Case submission; writing of manuscript; final revision; overall revision.

Nilton Di Chiacchio  | ORCID 0000-0001-9536-2263
Case submission; writing of manuscript; final revision; overall revision.