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Polydactylous Retronychia after Removal of a Plaster Cast

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Abstract:- Retronychia is a rare onychopathy, occurring in young adults. It is due to a conflict between the nail plate and the proximal supra-nail fold. Favouring factors are predominantly microtrauma. The diagnosis is clinical and confirmed by surgical avulsion, which also has therapeutic value. We report a case of retronychia of the nails of the right hand in a 22 year old man, following immobilisation with a right anterobrachial-palmar cast.

Keywords:- *Retronychia, Hand, Immobilization.*

I. INTRODUCTION

Retronychia is defined by a proximal ingrowth of the nail plate into the supra-nail fold [1].It is often misdiagnosed at an early stage, which delays management. We report a case of a 22-year-old patient with retronychia of all four nails on the right hand after removal of an anterobrachial-palmar cast on the same side.

II. OBSERVATION

A 22 year old patient, with no previous pathological history, suffered a fracture of the lower extremity of the right forearm requiring the use of an anterobrachial-palmar cast for forty days. Two months later, he was consulted for a very painful swelling at the level of the proximal supra-nail fold of the nails of the 2nd, 3rd, 4th and 5th fingers of the right hand. The dermatological examination noted a proximal paronychia with growth arrest of these nails (figure 1). Surgical avulsion of the third nail was performed, confirming the diagnosis by showing a superposition of the new and old nails. For the retronychia of the other three nails, an application of topical corticosteroid was indicated once a day under occlusion. The evolution was marked by the disappearance of pain and paronychia with good nail growth.

Fig. 1: Proximal paronychia of 4 nails

III. DISCUSSION

Retronychia is a pathology of the nail most often affecting young adults. It is most often due to microtrauma, responsible for proximal ingrowth[2].The toenails are the most affected. However, location on the hands is very rare, which makes the diagnosis more difficult and often confused with candidal or bacterial perionyxis[3].

The first case of retronychia was published by Berker et al[4]. And in 2008, it was described by the European Nail Society as an entity in the nosology of nail pathology[2]. In a series of 18 patients with retronychia, several risk factors were identified, including: trauma, cast immobilisation, pregnancy and the postpartum period.

The occurrence of retronychia after cast immobilisation is rarely described in the literature, and the mechanism is not yet well understood, but could be explained by a break in continuity between the nail plate and the matrix as a result of reduced blood flow due to the compressive effect of the cast[3].

The diagnosis of retronychia should be made when there is a combination of persistent paronychia, oozing from the proximal-nail fold and arrested nail growth. However, there are other less specific signs reported in the literature, including thickening of the proximal-nail fold, yellowish discolouration of the nail plate and beauty marks[5]. Diagnostic confirmation is made at the time of surgical avulsion by showing an overlay of different generations of the nail[3].

Retronychia mostly affects a single nail, a polydactyly location is unusual[l], which would be responsible for diagnostic and therapeutic delay.

The treatment of retronychia depends on the stage of evolution. Topical corticosteroids are indicated in the case of early paronychia. Surgical avulsion is indicated in the late stage or if there are pyogenic granuloma-like lesions[6]. In addition, preventive measures have a place in the management of retronychia, by wearing loose shoes, and correcting any nail problems such as nail deviation[3].

IV. CONCLUSION

The location and the mechanism of occurrence of retronychia in our patient make the particularity of our observation. The interest of the knowledge of this onychopathy allows a fast and adequate management.

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