

Onychopapilloma – a rare tumour of the nail apparatus

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ABSTRACT

KEY WORDS:
onychopapilloma.

ADDRESS

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Introduction. Onychopapilloma is a very rare benign tumour of the nail matrix and nail bed. Clinically onychopapilloma presents as longitudinal erythronychia, exceptionally as leukonychia or melanonychia. After nail avulsion, circumscribed, keratinized cone-shaped structure is seen. In histopathology distal subungual hyperkeratosis and nail matrix metaplasia and papillomatosis are observed. Etiopathogenesis of onychopapilloma is unknown. Treatment is only surgically.

Objective. Presentation of first Polish case of onychopapilloma.

Case report. A 32 year-old healthy woman was admitted to our department due to subungual longitudinal tumour of the right thumb, presented as erythronychia. Lesion was excised. Histopathologic examination confirmed diagnosis of onychopapilloma.

Conclusions. Onychopapilloma is a rare nail apparatus condition with uncharacteristic clinical feature. Tumour should be distinguish from inflammatory and neoplastic disorders.

INTRODUCTION

Onychopapilloma is a very uncommon benign tumour developing within the nail bed and the distal part of the nail matrix. Material gathered by the authors for the period 2005–2010, encompassing 1,588 patients with diverse pathologies of the nail apparatus, does not include a single case of this condition [1]. Medical literature published to date contains only about a dozen reports on onychopapilloma. It seems, though, that due to the non-specific clinical picture of the condition and its usually asymptomatic progression the incidence of the tumour is underestimated.

OBJECTIVE

Presentation of a case of onychopapilloma previously unreported in Polish medical literature.

CASE REPORT

A 32-year-old woman in good general health was admitted to the Department of Dermatology, Venereology and Allergology, Medical University of Gdansk, for the diagnosis and treatment of a small tumour located in the nail apparatus of the right thumb. The lesion manifested itself on the nail plate as a dark longitudinal streak, 2 mm wide, with isolated elliptical hematomas (erythronychia) (Fig. 1 A). A keratinized tumour mass was identified under the nail plate (Figs. 1 B and 2). The patient first noticed the lesion several months prior to admission; she reported no subjective complaints. Based on the clinical picture, the preliminary diagnosis of onychopapilloma was made. The surgical procedure was conducted under regional anaesthesia and local ischaemia. The nail plate was resected and the longitudinal lesion was removed by elliptical excision. Histopathological examination showed acanthotic

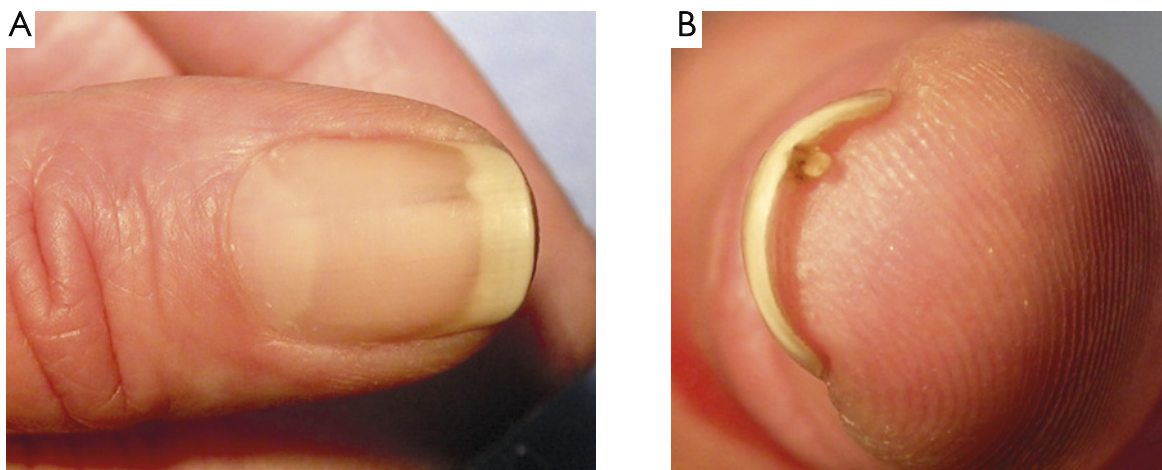


Figure 1 A, B. Clinical feature of onychopapilloma



Figure 2. State after nail avulsion

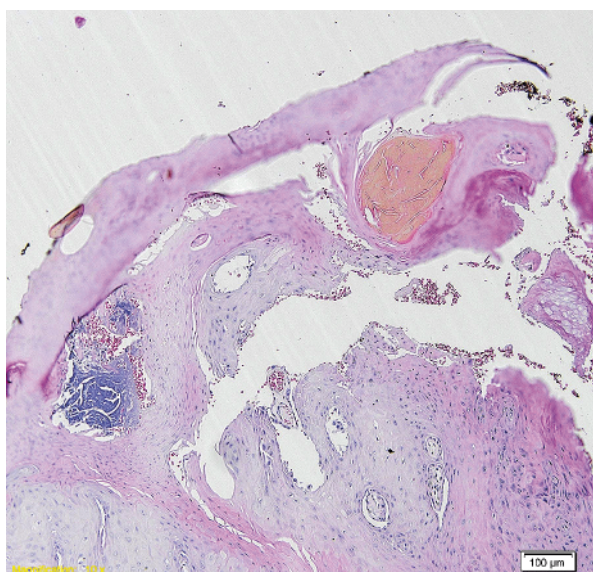


Figure 3. Histopathological feature of the tumour

and papillary hyperplasia of the epidermis with markedly thickened stratum corneum, which corroborated the clinical diagnosis of onychopapilloma (Fig. 3). No signs of local recurrence were observed, and the aesthetic effect achieved with the procedure was very good (over a follow-up period of 12 months).

DISCUSSION

The first case reports of the condition in medical literature were published by Baran and Perrin in 1995 [2]. The authors described four patients with “localized, distal, subungual keratosis with multinucleate cells”. In 2000, the same authors presented 14 consecutive cases with similar clinical and histopathological features [3] and suggested the term “onychopapilloma” (nail-producing papilloma) to refer to the condition. Three criteria were adopted for the histopathological spectrum of the tumour: 1) acanthosis and papillomatosis in the distal part of the nail bed epidermis, characterized by the presence of multinucleate cells (with

Table I. Differential diagnosis of longitudinal erytroonychia according to Jellinek [7]

Common	
Onychopapilloma	
Glomus tumour	
Bowen’s disease	
Viral warts	
Uncommon	
Warty dyskeratoma	
Benign vascular proliferations	
Lichen planus (isolated lesions)	
Melanoma	
Basal cell carcinoma	

a mean of 10 nuclei), 2) thick keratinized zone, 3) presence of distal keratin resembling keratin found in the nail bed. The distinct clinical and pathological nature of onychopapilloma was put into question by Gee *et al.* [4] in 2002. The authors undermined the histopathological criteria proposed by Baran and Perrin [3], claiming that subungual keratosis with a typical clinical picture is sufficient for diagnosing the condition. The presence of multinucleate cells is recognized as a variable feature.

The clinical picture of onychopapilloma is not specific. In most cases, the tumour presents as longitudinal erythronychia. Other signs include longitudinal deformation of the nail plate (in the shape of the letter V at the distal end), occasionally also elliptical hematomas and onycholysis associated with the subungually located tumour mass. Hard hyperkeratotic conical structures of the tumour can be noticed under the edge of the plate. Nail plate removal exposes keratinized elliptical distally widening onychopapilloma structures [2, 3]. Less common clinical manifestations of the tumour include leuconychia and melanonychia [5, 6]. The differential diagnosis of onychopapilloma must primarily include conditions presenting as erythronychia, i.e. glomus tumour, lichen planus, amyloidosis, Darier's disease, Bowen's disease and other malignant tumours located in the nail apparatus (Table I).

Surgery is the only treatment modality available for onychopapilloma.

Summing up, onychopapilloma is a rare tumour with a non-specific clinical picture, requiring differential diagnosis with other conditions, especially malignant skin tumours.

Piśmiennictwo

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