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Dupytren's exostosis of the great toe with the bearing of tight shoes: A case report

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Abstract

Our work's aim is to talk about a case of subungual exostosis of the great toe, benign tumor which is rare among patients above 50 years associated with bearing of tight shoes and to bring our therapeutic experience through observation of a 51 years old patient. Its surgical management has consisted in completing the excision of the lesion and histopathology are mandatory for the diagnosis. The post-surgical follow up have been simple. The clinical and para clinical controls that have been done within 6 to 12 months didn't show any relapse.

Keywords: Dupuytren's exostosis, bearing of tight shoes

Introduction

Dupuytren's exostosis (subungual exostosis) described for the first time by DUPUYTREN in 1847 through a series of 30 cases, is an osteocartilaginous tumor of young subjects not exceeding fifty. It is a relatively rare, benign tumor of unknown etiology that affects the distal phalanx of the toes or fingers [1]. It is characterized by its potential for recurrence [2]. The diagnosis is confirmed by standard radiography and especially the anatomopathologic analysis. The treatment is always surgical.

Patient and observation

We present a case of a subungual exostosis of the second phalanx of the hallux in a 51-year-old patient who presents as a contributing factor, the wearing of narrow shoes. Patient and observation This was a patient aged 51-year-old admitted to the orthopedics and traumatology department of the University Clinics of Lubumbashi, for painful swelling exacerbated when wearing narrow shoes with detachment of the nail of the left big toe for 5 months, no notion of foot infection reported in the history. On his physical examination, distal onycholysis was observed with lifting of the nail plate by an ovoid mass approximately 1.5 cm in diameter, firm, pink, telangiectasis and scaly on the surface and a left foot radiograph was performed before surgery. Pressure on the tablet causes exquisite pain with no associated discharge. Examination of the other nails and the rest of the integument is normal. Preoperative assessment carried out, hemoglobin = 13g%, Hematocrit = 33%, Red blood cell = 2,850,000 / mm³, Platelets = 860,000 / mm³, White Blood cell = 8000 / mm³, Segmentation speed = 10 mm / h, Time of Bleeding= 2'00", Staining time= 4'00", Blood group = O Rh+, Leukocyte formula: Granulocyte= 69%, lymphocyte= 20%, Monocyte= 11%, MCV= 74.2 mm³, TGM Hb = 22.6 pg, CGM Hb= 30.5 Surgical treatment consisted of complete removal of the mass with careful curettage of the bony plane of the distal phalanx (Figure 2). An anatomopathological analysis carried out revealed a subungual exostosis.



Fig 1: The postoperative follow-up was simple

Discussion

Turret's exostoses are relatively rare in general and pediatric orthopedic populations [3]. We believe that it is much more frequent but above all unknown [4]. It can occur at any age but it predominates in children and young adults under 50, which is different from our observation, because the patient was 60 years old. It affects both sexes equally. It sits more, 9 times out of 10 at the level of the foot and exclusively at the level of the big toe [6] as encountered in our patient. The site of this lesion is not always subungual; it can sometimes be periungual without any real alteration of the periungual apparatus [7] several terms have been used to distinguish the same lesion: subungual exostosis, phalangeal exostosis [7], Dupuytren's exostosis [8] and turret's exostosis [9]. This is an osteocartilaginous tumor whose etiopathogenesis remains unknown. Most authors considered it to be a reactive fibrocartilaginous metaplasia of periosteal origin resulting from [9] of the nail and ossifies and can generate a true exostosis under the ungula [10] this joins our observation because the microtraumas created by the wearing of narrow shoes by our patient would explain the occurrence of exostoses under the nails.-The theory of infection, the role of infection in the genesis of this lesion is not clear [6]. Hereditary theory, Lichtenstein suggested that it is a crude form of multiple hereditary exostosis [11]. The teratological theory, Williams thinks that the exostosis under the nail would come from a residual rudimentary pre-hallux bone [12]. Activation of a cartilaginous cyst has been suggested as a possible etiology [6]. The diagnosis of Dupuytren's exostosis is discussed with an ingrown nail, a pyogenic granuloma or a subungual melanoma [7], however the diagnosis becomes easy after a plain x-ray of the hallux which showed a stalked radiopaque mass on the dorsomedial surface of the distal phalanx. Treatment consisted of marginal surgical excision of the exostosis, which generally alleviated symptoms and prevented recurrence [8]. Meticulous surgical technique and wound closure could minimize this risk [7]. Digital amputation has been reported by some authors, but it seems to us to be disproportionate to the benignity of this condition, the malignant transformation of which has never been reported [13].

Conclusion

Dupuytren's exostosis is a relatively simple diagnosis of benign tumor its occurrence at the age of sixty is exceptional, it is essential to carry out radiography and histopathological analysis, to eliminate other diagnoses this lesion could be prevented by

avoiding repetitive microtraumas, in particular wearing narrow wounds and playing barefoot football... Complete excision of the lesion and the delicate separation of the underlying structures from the nail bed leads to resolution total problem, providing the lowest risk of recurrence.

Conflicts of interest

The authors declare no conflicts of interest

Authors contribution

All authors have contributed to the conduct of this work and all authors declare to have read and approved the final version of this manuscript.

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