

## Dorsomedial exostosis at the distal phalanx of hallux a cause of pain- A case report

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### Abstract

Pain at the medial aspect of great toe is often due to ingrowing toe nail, subungual or periungual pyogenic granuloma. Exostosis at the dorsomedial aspect of the distal phalanx can present with such symptoms and should be kept in the differential diagnosis. Good quality radiographs should be sought and exostosis looked for. We report the case of a 25 years old male with exostosis at the distal phalanx of hallux, who presented with pain at the medial aspect of his right great toe.

### CASE HISTORY

A 25 years old male presented to our hospital with pain at the medial aspect of his right great toe. He was already operated in another hospital, as his pain had been erroneously attributed to ingrowing toe nail after his pain did not improve with a trial of NSAID. Partial nail excision had been done. Later he had been treated on the lines of subungual pyogenic granuloma for his painful and inflamed nailbed. With the course of time acute inflammation had settled but his pain continued.

We took digital radiographs of his great toe (Fig. 1) that revealed a dorsomedial exostosis at the distal phalanx. Reviewing his initial radiographs (Fig. 2) showed a bony shadow at the distal phalanx which was missed at that time. Surgical excision of the exostosis was undertaken.

**Figure 1**

Figure 1



**Figure 2**

Figure 1



## DISCUSSION

Subungual exostosis is an acquired, benign bony tumor that can affect any age group but most often is discovered in persons 10 to 30 years of age with no gender or racial predilection. It presents as a distal, subungual mass or pain usually on the dorsal-medial great toe. Fingernail lesions rarely occur [1]. Subungual exostosis begins as a reactive fibrous growth that develops cartilage and ultimately ossifies [1]. A dorso-medial location is characteristic. Size of lesion is about 1 cm in diameter. Histologically it has a fibrocartilagenous cap on a base of trabecular bone. Great

toe involved in 70-80% of cases [1]. Subungual/ dorsomedial exostosis should be kept in the differential diagnosis of pain at the nail bed or medial aspect of hallux. Although the diagnosis can be made with a biopsy, radiographs to evaluate for bony involvement are recommended before biopsy of any subungual mass is undertaken[1]. This can prevent the wrong diagnosis and treatment. Exostosis at the hallux has also been reported after nail excision. Inadvertent iatrogenic injury to the nail bed and underlying phalangeal periosteum during nail removal may trigger off rapid bone growth resulting in exostosis [2].

Exostosis at hallux can become symptomatic after surgical correction of hallux valgus[3]

Complete excision remains the treatment of choice, although recurrences are reported. Since the tumor can recur, some authors recommend that it is best to initially treat any subungual lesion aggressively by saucerization rather than simple exostectomy [4]. They advocate to saucerize and curettage the lesion with a high-speed burr and pack the area with allogenic bone graft. By doing so no recurrence has been reported in their cases.

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