MULTIPLE NORA LESIONS: A RARE CASE REPORT

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Abstract

Background: Bizarre parosteal osteochondromatous proliferation (BPOP), first described by Nora et al. in 1983. It is a rare lesion that occurs in the short bones of the hands and feet and eventually presents as a parosteal mass [1,2]. BPOP does not become malignant, although a high rate of recurrence following surgical resection is reported. Because of its atypical imaging findings and histopathological appearance, a BPOP might be misdiagnosed as a malignant tumor such as an osteochondroma with malignant transformation, a parosteal osteosarcoma, or a periosteal osteosarcoma [5,10]. Our case reports enlightens multiple Nora lesions in the same location, which is the first to be reported in literature to the best of our knowledge till date.

Keywords: Nora, Bpop lesion ct malignancy

Introduction

Bizarre parosteal osteochondromatous proliferation (BPOP), first described by Nora et al. in 1983. It is a rare lesion that occurs in the short bones of the hands and feet and eventually presents as a parosteal mass[1,2]. BPOP does not become malignant, although a high rate of recurrence following surgical resection is reported. Because of its atypical imaging findings and histopathological appearance, a BPOP might be misdiagnosed as a malignant tumor such as an osteochondroma with malignant transformation, a parosteal osteosarcoma, or a periosteal osteosarcoma [5,10]. Our case reports enlightens multiple Nora lesions in the same location, which is the first to be reported in literature to the best of our knowledge till date.

Materials and Method:

A 30 year Indian male presented to us with a 4*2*1cm lobulated mass on planto-medial aspect of metatarsal head and proximal phalynx of right great toe since 4 years. [3,4] There was no previous history of trauma in this skeletally mature patient. Local examination revealed a painless swelling, hard, non tender with irregular margin, immobile, not fixed to the overlying skin which was intact, sensibility and vascularity of the involved toe were normal. The lesion was completely excised surgically with its pseudocapsule, as there were no adherence to any of the surrounding bony or soft tissue structures and diagnosis was made by subsequent histological examination of the excised lesion.(8,9,10) Routine lab investigations were normal. However the preoperative CT scans demonstrated multiple similar lesions in the same foot leading to a diagnostic dilemma.

Discussion

BPOP arise directly from the cortical surface of the bones, as if they are "stuck' on the periosteum. The underlying bone is structurally normal without cortical flaring as in osteochondroma. Radiographs show a well defined mass, though in some cases they may exhibit speculated or irregular surface as in our case causing diagnostic dilemma. There is no continuity for the lesion with the medullary cavity of the host bone. Intra lesional calcifications may be seen in some of the lesions. The treatment is a simple excision. The recurrence rate is very high[1,2,6,9]. Nora et al reported a 51% rate of initial recurrence and a 22% of second recurrence. The majority of the recurrences occurred within 2 years of excision. A wide excision is probably curative.

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Conclusion

BPOP is a rare benign lesion that grows rapidly and has aggressive features on imaging studies as well as confusing findings histologically, thus it may lead to an erroneous diagnosis and inappropriate treatment. Careful axial CT scanning is helpful but histopathology gains greater importance as a diagnostic tool in this group of entities [6,7].
References


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