

## Case Report

# Chondroma of right great toe

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### ABSTRACT

Chondromas are benign neoplasms arising from hyaline cartilage cells or mesenchymal cells often solitary, slow-growing masses. They may grow to a size that causes clinical problems, depending on the location. These are not locally invasive. Some chondromas may undergo malignant transformation; however, most chondrosarcomas are thought to arise *de novo*. We present a case of a 33 years old male patient who presented with chronic swelling on the dorsal aspect of the DAP joint of right great toe. The patient underwent surgical excision of the painless lesion. Post operative period was uneventful and the swelling resolved immediately. After a follow up of 1 year the patient has no complaints of pain or swelling.

**Keywords:** Chondroma, Painless swelling, Surgical excision

### INTRODUCTION

Chondromas are benign neoplasms arising from hyaline cartilage cells or mesenchymal cells often solitary, slow-growing masses. They may grow to a size that causes clinical problems, depending on the location. These are not locally invasive. Some chondromas may undergo malignant transformation; however, most chondrosarcomas are thought to arise *de novo*.<sup>1-10</sup>

### CASE REPORT

A 33 year old male presented with a 5 year history of painless chronic swelling; slowly increasing in size on the dorsal aspect of the DAP (Figure 1) joint on his great toe of the right foot. The patient denied any history of trauma to the foot with no comorbidities on physical examination his great toe revealed pain free nontraumatic chronic swelling with no nail deformity. MRI was performed of the left foot which was suggestive of giant cell tumor. The patient was taken up for surgical excision of the mass. A transverse incision was made on the prominent swelling under right ring block anesthesia with tourniquet. The flap was elevated and a solid and rubbery mass was excised measuring 2.5×1.5 cm (Figure 2) with

no bony or soft tissue invasion. A Bony indentation on the middle phalanx was revealed and after excision histopathological examination (Figure 3 A and B) was performed and definitive diagnosis of chondroma was made. The surgical site was flushed with copious amount of antibiotic solution and closure was completed. On monitoring the wound was normal with no collection of pus and the patient was discharged after 8 days. After one year of follow up the patient remains asymptomatic with no recurrence of mass (Figure 5).



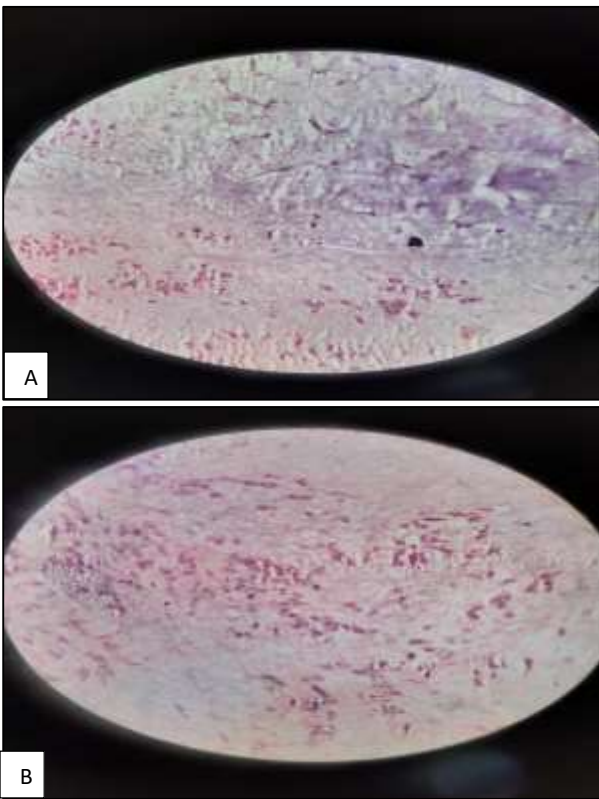
**Figure 1:** Chronic swelling of DAP joint of great toe.



**Figure 2: Solid and rubbery mass.**



**Figure 5: Post operative view.**



**Figure 3 (A and B): Histopathological examination of solid mass.**



**Figure 4: Operative image after excision.**

## DISCUSSION

A soft tissue chondroma may develop from fetal cartilage remains during embryogenesis or may develop due to history of trauma and chronic inflammation where the mesenchymal stem cells differentiate into chondrocytes and form mature cartilaginous tissue.<sup>1,2,4,6</sup> Soft tissue chondromas are not common cartilaginous tumors which is made up of hyaline cartilage. This type of neoplasm can occur on one or more than one site, it may be found on feet or body however 80% of cases are related to fingers.<sup>2,3,8</sup> Tendons, tendon sheath and joint capsule are involved mostly or synovial origins is possible in STCs. In our case mass did not involve any bone, capsule or tendinous structure.

## CONCLUSION

Chondroma is a rare bone tumour, and it is even rarer when it occurs in a toe. Local excision is viable for low-grade chondroma of the phalanx, which minimizes surgical trauma while preserving the function and aesthetics of the limb.

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