

A Rare Case of Myofibroma to the Distal Toe in an Adult

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Purpose & Literature Review

Myofibromas are rare, benign tumors that typically occur in young children under the age of two. These lesions occur in the skin and subcutaneous tissues as solitary lesions or multifocal lesions anywhere in the body. The patients have a good prognosis and there is low recurrence after excision of solitary lesions. On x-ray they appear as well-circumscribed lytic lesions with or without a sclerotic margin. (1)

It is even more uncommon for these tumors to occur in adults. Of those that are documented most occur in the craniofacial bones. Other singular cases of them were found in the ilium and the hand are published. There are currently no documented foot or ankle myofibromas in the adult population. (2)(3)

Methodology/Case Presentation

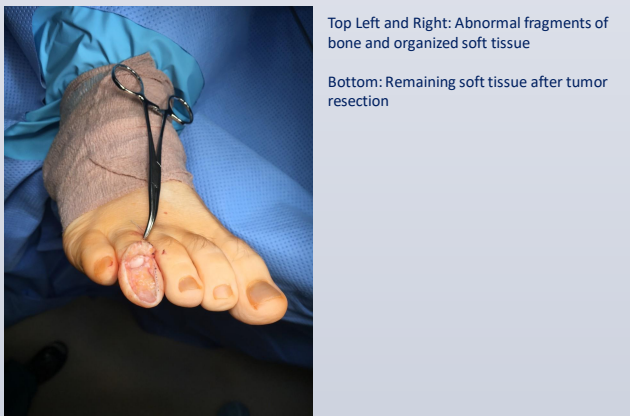
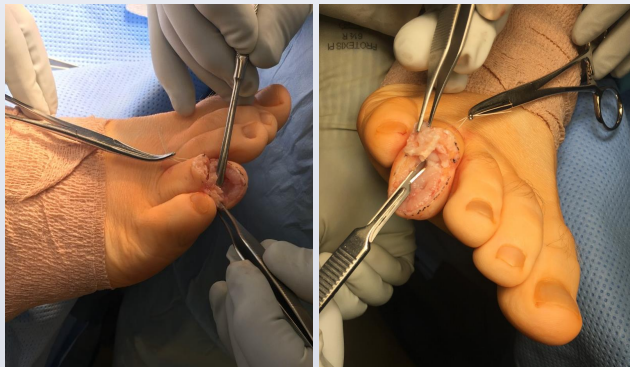
This case details a 40 year old male that presented to the office with a painful and swollen right 4th toe that had been increasing in size for the past year. The patient had no history of trauma to the digit and an uneventful past medical history. Upon presentation X-rays were taken of the foot revealing almost complete bony destruction of the distal phalanx of the right 4th toe. It was then determined surgical intervention was warranted.



Pre-Operative XR and clinical presentation of the right foot

Procedures

The right 4th toenail and dorsal skin were excised with a wedge incision to expose the distal phalanx. There was only a small spicule of the base of distal phalanx laterally remaining, with fibrous, organized soft tissue which had replaced bone. The cartilage of the middle phalanx was well preserved. All of the abnormal bone and soft tissue was excised and sent for frozen section intra operatively. When it was confirmed that the resected tissue was benign, the flap was closed. The patient was discharged to home weight bearing as tolerated in a surgical shoe.



Top Left and Right: Abnormal fragments of bone and organized soft tissue

Bottom: Remaining soft tissue after tumor resection

Results

The intra operative pathology could not be identified at the hospital pathology lab and was sent to the Mayo clinic. The diagnosis from the Mayo clinic was myofibroma. The pathology described a "moderately spindle cell lesion arrange in fascicles with branching vascular spaces." The patient healed the incision with only the complication of a remnant of nail matrix/nail which was easily removed. He has been pain free with no recurrence.



Discussions

Myofibromas are benign lesions that mostly occur in the pediatric population. There are currently no documented cases of myofibromas in the foot or ankle making this a very rare and unique case. This lesion should be considered for any case of spontaneous toe swelling.

Resources

1. Sargar, K., Sheybani, E., Shenoy, A., Chrisinger, A., Khanna, G., (2016) *Pediatric Fibroblastic and Myofibroblastic Tumors: A Pictorial Review*. Radiographics. 36:1195–1214. Doi: 10.1148/rg.2016150191
2. Tsuchie, H., Bianchi, G., Gambarotti, M.m Donati, DM. (2017) *Solitary intraosseous myofibroma of the ilium in an adult patient: A case report and literature review*. doi: 10.1016/j.jos.2017.10.
3. Horner, CW., Speller, A., McBride, T., Dias, R. (2012) *Rare digital tumours: two case reports and mini review*. Vol. 17 (2), pp. 267-70. Doi: 10.1142/S0218810412720318

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