Excision of Ossifying Fibromyxoid Tumor with Genetic Testing and Closed Utilizing Extensor Digitorum Brevis Muscle Flap.

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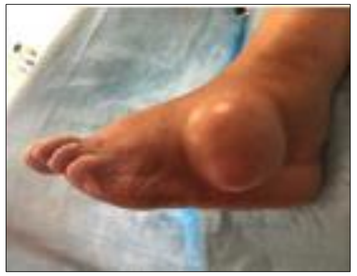
Purpose

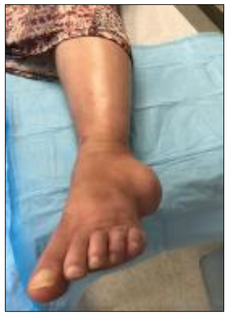
The purpose of this study is to highlight the presentation and treatment modalities when dealing with an uncommon soft tissue mass that has been infrequently described in literature.

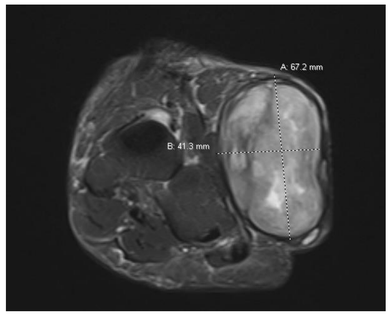
Case Study

62 year old female with a 30 year history of soft tissue mass on her right ankle. In 2016, the patient first saw a different podiatrist where there was an attempt to aspirate the mass however, no materteral was drawn out. She was referred to the foot and ankle surgeon. Upon presentation to our office she states in the past 5 years the mass has been increasing in size and pain. On physical exam there is a large mass noted over the lateral aspect of the patient's left foot near the area of the sinus tarsi. The mass is firm and nodular does not appear to involve the skin and is well encapsulated and not mobile in nature. Radiographs were taken to rule out bone involvement. MRI revealed a well-circumscribed mass centered along the lateral aspect of the midfoot measuring 6.8 x 4.1 x 6.7 cm and fine needle biopsy sent to pathology with suspicion of malignancy. Pathology results show low grade proliferation and gave the go ahead for local excision of the mass.

Figures 1 & 2: Preoperative Pictures







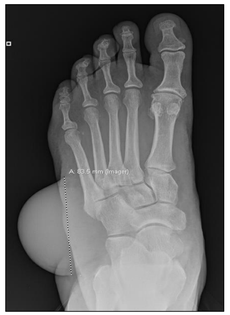
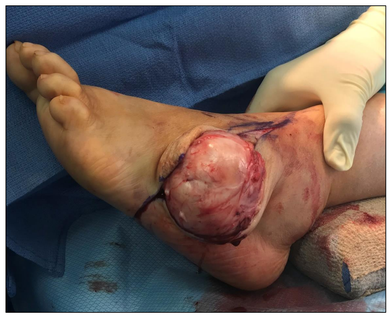


Figure 3 & 4: Advanced Imaging



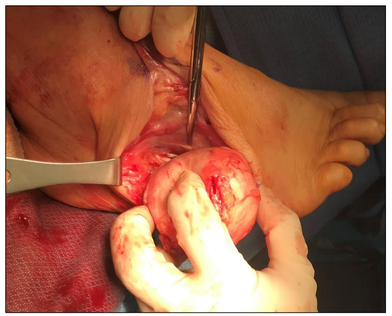


Figure 5 & 6: Intraoperative Dissection

Literature Review

Ossifying fibromxoid tumor is an uncommon soft tissue mass. Approximately 300 cases have been reported worldwide. The median age of occurrence is in adults with the median age of 50 years old.[1] There is usually a long standing clinical course ranging from 1 to 20 years.[2] Histopathologically, the differential diagnoses include sclerosing epithelioid fibrosarcoma, calcifying fibrous pseudotumor of digits, malignant peripheral nerve sheath tumor, synovial sarcoma, ossifying hematoma, and an ossifying epithelioid hemangioendothelioma.[3] Recent advances show that rearrangement of the PHF1 gene has been observed in 80% of cases.[4] PHF1 gene translocations have been described in endometrial stromal sarcomas.[3] Radiographs may reveal nodular soft tissue mass with an incomplete peripheral rim of ossification. There may be erosion of the underlying bone or evidence of periosteal reaction.[5] 60-70% of CT scans revealed a peripheral bone shell.[6] Excision is the treatment of choice.

Case Study Continued

Procedure: Attention was directed to the left ankle and a curvilinear incision was placed over the mass along skin tension lines. The superficial skin overlying the mass was then excised with the use of a #15 blade. The borders of the soft tissue mass were dissected from the surrounding soft tissue, any bleeders were cauterized and tied off, the mass was dissected in a solid mass and the attached stalk at the peroneal tendons and sinus tarsi was cauterized to avoid recurrence and the mass was removed. The mass was labeled soft tissue mass possibly granuloma and was sent to pathology. It measured 6.5cm x 6.5 cm in a solid ball mass. The extensor digitorum brevis was transposed over the deficient and the excessive skin flap and was reduced and trimmed for primary closure

Analysis & Discussion

After excision, the patient has not had any signs of reoccurrence. She is ambulating in normal shoe gear with minimal discomfort Pathology at hospital reported ossifying fibromyxoid tumor. Specimen was sent to Mayo Clinic for cytogenic genetic testing. Mayo Clinic reported negative for endometrial tumor, FISH and Ts with no rearrangement of JAZF1, PHF1 and YWHAE gene regions.

There are limited described in the literature and none to our knowledge in the foot and ankle. You should exhaust your resources when treating a mass with unknown etiology. Correct diagnosis will aid in correct treatment. In this case that is complete excision.

References

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