

Benign mesenchymoma of foot: A rare occurrence

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ABSTRACT

Benign mesenchymomas comprising of two or more mesenchymal elements along with fibrous tissue are extremely rare soft tissue tumors. Their occurrence in foot is extremely rare with only one case reported so far. We report on such case of benign mesenchymoma in the foot of 27-year-old male. Microscopic examination of excised mass revealed islands of hyaline cartilage, bone, adipose tissue, and blood vessels embedded in fibrous tissue.

Key words: Benign, foot, mesenchymoma, soft tissue

INTRODUCTION

Benign mesenchymomas are exceptionally rare benign tumors composed of two or more nonepithelial mesenchymal elements along with fibrous tissue.^[1] Soft tissue mesenchymomas are still rarer.^[2] We report one such rare occurrence in the left foot of a 27-year-old male.

CASE REPORT

A 27-year-old male presented with a slow-growing painless soft tissue mass on the sole of left foot since 2 years.

On examination, a soft mass was felt on the left sole about 5 cm in diameter. It was not adherent to bone. The X-ray demonstrated that the tumor was well-circumscribed and noninfiltrating. It contained areas of calcification and did not involve bone. The tumor was excised. On gross examination, the specimen measured 5.5 × 5.5 × 3.8 cm. The cut surface showed lobulated cartilage with areas of calcification and ossification. Histologically, the findings were those of a mixture of cartilage, bone, mature adipose tissue, and blood

vessels [Figure 1]. The cartilaginous tissue contained areas of calcification and bone formation. On follow-up after 6 months, no recurrence was evident.

DISCUSSION

Soft tissue mesenchymoma is an exceptionally rare benign neoplasm.^[1,2] Benign mesenchymoma is a soft tissue tumor that contains two or more differentiated mesenchymal components in addition to fibrous tissue.

In 1948, Stout coined the term mesenchymoma.^[3] However, this original description inappropriately described a collection of 8 malignant mixed mesenchymal tumors. Possible mature mesenchymal elements that can be seen in benign mesenchymomas include muscle, fat, blood vessels, cartilage and/or myxomatous tissue. This possible variety of tissues that can be present in a mesenchymoma and occasional predominance of a single element has further added to the challenge of consistent nomenclature.

Benign mesenchymomas are typically found in variable locations such as the mesentery, skin, liver and ovary.^[3] Soft tissue mesenchymomas are exceptionally rare.^[2] Only one case of benign mesenchymoma has been reported in foot.^[4] Since the description by Le Ber and Stout,^[5] only 7 additional cases of hyaline cartilage predominant appendicular mesenchymomas have been reported^[2,6-9] and of these, only 2 patients were skeletally immature.^[5,8] These case reports describe benign mesenchymomas in the forearm,^[4] palm,^[5] hip,^[6] knee,^[6] heel,^[6] thigh,^[7] and sole

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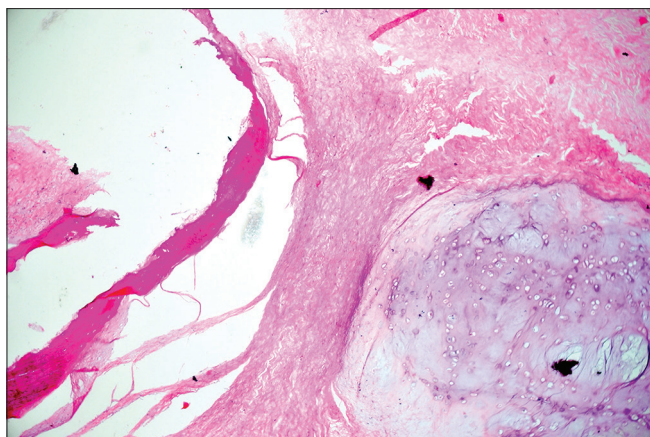


Figure 1: Photomicrograph revealing island of hyaline cartilage and bone in fibrous tissue (H and E, ×40)

of the foot. The mature mesenchymal tissues reported in these benign mesenchymomas included fat, blood vessels, smooth muscles, striated muscle, cartilage, lymphoid and hematopoietic tissue.^[5]

Controversy does exist regarding the true nature of benign mesenchymomas. Benign mesenchymomas have currently neither been recognized nor defined by the World Health Organization classification of soft-tissue tumors. These tumors have been labeled as hamartomas since they comprise of disorganized mass of tissues normally occurring in their site of origin. However, some of the potential constituents of benign mesenchymomas include hyaline cartilage, a tissue not normally found in soft tissue. For this reason, as well as possibility of recurrence,^[4] some clinicians instead classify benign mesenchymomas as a neoplasm. Regardless of the nomenclature, agreement exists that benign mesenchymomas have no relation to malignant mesenchymomas.

Stout^[3] stated that the tumor occurred in both benign and malignant forms and that while the benign form was capable

of local recurrences, the malignant form may have distant metastasis. Benign mesenchymomas may be associated with morbidity as a result of local infiltrative growth.^[9]

CONCLUSION

Soft tissue mesenchymoma is an exceptionally rare neoplasm. The histological finding of even small amounts of mesenchymal elements other than cartilage provides a basis for recognition of this rare but distinctive pathological entity.

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