NYCPM students Britton Plemmons, ’13 (left) and Spencer J. Monaco, ’13 (right) with their poster.

Not pictured are Samantha DelRegno, ’13 and Todd M. Chappell, ’14.
A Rare Incidence of a Fibrosarcoma in the Plantar Foot that Mirrored Fibromatosis: A Case Report

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Purpose

A retrospective case report is presented of a 68-year-old Caucasian male with a two-year history of a plantar soft tissue mass (STM) of his right foot. The patient was first seen by an orthopedic surgeon four years prior to the initial visit where he was treated conservatively with a dressing pad. The patient consulted with an interest in surgical excision of the STM. He states that the mass was originally the size of a peanut, however, has since grown larger and is becoming painful on weight-bearing.

The patient denies any medical conditions, family history of medical conditions or medication use. He has a 35+ history of smoking cigarettes, and besides the discomfort of the right plantar mass on weight-bearing, has no other complaints.

Upon physical examination, the STM was located on the plantar aspect of the right mid-foot near the level of the second tarsometatarsal joint (Figure 1). The size of the lesion was measured to be 2.0 x 2.0 cm. Mild tenderness was elicited on direct palpation. The STM was stable to the touch and to palpation; however, the lesion did not move with the plantar fascia when the navicular was dorsiflexed and the windshield window mechanism engaged. The patient’s vascular, dermatological and neurological status was intact. X-rays and a MRI with and without contrast were ordered to evaluate the integrity of the STM of the right foot (Figure 2).

Case Study

The MRI was performed without contact with the disc of the reading radiologist and was interpreted on a lesion that demonstrates imaging features consistent with a benign superficial plantar fibromatosis. The patient was scheduled for surgical excision of the plantar fibromatosis. A 6.0 cm curvilinear incision was made over the second plantar metatarsal joint to the level of the lesion. It was performed. It was observed that the mass penetrated through the plantar fascia (Figure 3) and had a pedicle extending distally which received a relatively large blood vessel medially.

The specimen was widely excised making sure that there was complete enucleation. 1.0 cm beyond the periphery of the mass. The specimen was sent to pathology for further analysis (Figure 4). The excised site was closed primarily with inverted suture and closed primarily. The patient tolerated the procedure well and no complications were reported.

The immunohistochemical pathology report was reviewed by the pathology department and interpreted as a spindle cell sarcoma, which stained for intermediate- to high-molecular-weight cytokeratin (Figure 5).

Discussion

The patient returned for a follow-up visit and the results of the pathology report were discussed. The patient was referred to the oncology department of a nearby hospital in which additional MRI imaging with contrast was ordered. The results of the MRI imaging did not indicate any remaining fibromatosis from the postoperative excision site (Figure 6), however, the patient underwent an additional surgical re-excision to ensure all malignant tissue was successfully excised and there was no metastasis of the fibrosarcoma. The patient was referred to physical therapy. Five months after resection of fibrosarcoma, there were no signs of recurrence. The scar is well healed and limb salvage was achieved.

References

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References