Glomangiopericytoma of the Plantar Midfoot: A Case Report
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Glomangiopericytoma is a rare vascular neoplasm characterized by a pattern of prominent peripheral growth. Glomangiopericytoma is a borderline low malignant tumor occurring in the skin and subcutaneous tissue after complete surgical resection. We present the case of a 65 year old male who presented with a progressively enlarging, painful plantar midfoot soft tissue mass. Masses arising within the nasal cavity, paranasal sinuses and other parts of the head and neck have been reported, but to the authors knowledge there has been no previous report of glomangiopericytoma in the plantar midfoot.

Case Report
The patient is a 65 year old male with past medical history significant for GERD and hypercholesterolemia who presented with a chief complaint of pain to his plantar left midfoot. His pain had been present for 2 years and was insidious in nature with no identifiable traumatic onset to his symptoms. He described a deep achy pain exacerbated by prolonged weight bearing. His pain was localized to his plantar left midfoot and did not radiate or cause discomfort when at rest. His area of maximal tenderness had been slowly and progressively enlarging over the previous 2 years with no history of associated wound or injury. He denied any history of associated wound or injury. He denied any personal or family history of malignancy prior to his presentation.

On clinical exam his pedal pulses were readily palpable and capillary fill time was intact to his distal digits. Light touch sensation was intact to the distal digits, and deep tendon reflexes were 2-4 bilateral lower extremity. Skin was dry, supple and intact with no open wounds, lesions or ecchymosis. Muscle strength was 5/5 bilateral lower extremity with no gross digital deformities. There was no history of associated wound or injury. He denied any personal or family history of malignancy prior to his presentation.

An 11 x 8 x 7 cm mass which was clearly visible within the central aspect of the plantar foot. There was no identifiable stalk with circumferential adhesions to the surrounding fat within the superficial layer of the plantar foot. There was no fluctuation or associated injury or clinical signs of infection.

MRI was performed on the left foot, with and without contrast, showing a 1.0 cm well-circumscribed enhancing soft tissue mass giving concern for a vascular malformation such as an aneurysmal hemangioma. The patient was referred for evaluation by a vascular surgeon who recommended surgical excision. The patient elected to proceed with surgery 4 months after his initial presentation. For the purpose of complete surgical excision a curvilinear incision was made overlying the soft tissue mass using a #15 blade.

Metzenbaum scissors were used to bluntly dissect and delineate the mass which was clearly visible within the central aspect of the incision site. It appeared hypervascular compared to surrounding tissues and violaceous in color. It was well demarcated with adhesions to the surrounding fat within the superficial layer of the plantar foot. There was no identifiable stalk with circumferential dissection. The lesion was not firm when palpated. It was fully filled with an apparent clear, highly viscous material. It was also demarcated with adhesions to the surrounding fat within the superficial layer of the plantar foot. There was no identifiable stalk with circumferential dissection. The lesion was not firm when palpated. It was fully filled with an apparent clear, highly viscous material.

Histologically glomus tumors are composed of a variable admixture of three components: small, rounded, uniform epithelioid cells, often with punched-out nuclei and sharply defined cytoplasmic borders (figure 2); small, capillary-sized vessels, surrounded by the glomus cells (figure 3); and smooth muscle bundles and sometimes more thick-walled blood vessels in varying proportions. (8-4) The glomangiopericytoma (also called myopericytoma or glomangiofibroma) shares features of conventional GT, glomus tumor, and angiofibroma. It belongs to the spectrum of lesions showing perivascular myoid differentiation, corresponding to true hemangiopericytoma, along with spindle cell myofibromatosis. Glomangiopericytoma occurs predominantly in the superficial soft tissues of the nasal cavity and distal extremities, often the wrist and ankle. To the authors knowledge no case of plantar midfoot glomangiopericytoma has been documented. (8,10)

Glasgow tumors are significantly benign tumors of the glomus body that are typically solitary and often arise in a subungual location. Although their precise etiology remains unclear, they are thought to arise from cutaneous arteriovenous anastomoses. These glomus structures are distinctly found within fingers and toes and are responsible for the characteristic painful paroxysmal触发.

References

Introduction
Prior to 12.033 [20,21]. However recurrence rate for the glomangiopericytoma variant is uncertain given its rare occurrence.

Diagnosis of glomus tumors in sites other than the subungal areas of the hand and foot makes an early and accurate diagnosis difficult. However, following the correct diagnosis, the treatment involves complete surgical excision. Diagnosis of a GT is primarily clinical as imaging techniques, such as plain radiography, magnetic resonance imaging, ultrasound and angiography, do not yield a specific image of the tumor as they may only show the precise location and size [19].

Accuracy diagnosed follow by complete excision is regarded as curative for patients with solitary lesions, and recurrence rates for solitary tumors have been found to range from 12.033 [20,21]. However recurrence rate for the glomangiopericytoma variant is uncertain given its rare occurrence. It is rare for malignant glomus tumors to occur. Refined criteria have been suggested to define malignant lesions, including deep location and a size of ≥1 cm, high nuclear grade and ≥3 mitotic figures/10 high power field [22].

In conclusion, we reported the case of an extradigital glomus tumor arising in the subcutaneous tissue of the plantar lateral left midfoot. Unusual tumors sites and differing clinical symptoms occasionally interfere with the diagnosis and treatment of patients with extradigital GTs. Therefore, it is important to include the GT in the differential diagnosis of patients with extradigital painful or asymptomatic lesions that are purple in color. Conclusio