

Prayer nodules: a case report highlighting the importance of thorough history-taking

Abstract

Prayer (or athlete's) nodules are hyperplastic, flesh-colored dermal masses that arise after repetitive trauma to an area, commonly occurring with prayer rituals or sports-related activities such as boxing. These nodules can appear worrisome and may prompt testing for malignancy if a detailed history is not gathered. We present a case of a prayer's nodule to demonstrate the importance of thorough social history-taking and adjusting treatment plans to align with the patient's best interest while also addressing their concerns.

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Introduction

Prayer (or athlete's) nodules arise from repetitive trauma to an area of the body, often due to continuous friction from prayer rituals or sports-related activities. We report a case of a prayer nodule arising on the foot resulting from frequent prayer rituals.

Case presentation

A 60-year-old South Asian Muslim male with a past medical history of diabetes mellitus, gastric disorder, and hypercholesterolemia presented to the outpatient dermatology office for evaluation of a chronic, mildly painful, left foot nodule. The nodule slowly increased in size over the past five years and was moderately painful upon palpation. He prays several times a day and prefers to sit on the left proximal lateral dorsal foot while praying.

On physical exam, there was a hyperkeratotic, hyper pigmented, and slightly eroded nodule approximately 1.5 cm in size on the left lateral dorsal foot. High-resolution sonographic imaging of the area demonstrated an anechoic, ovoid mass measuring 1.8 x 0.7 x 1.5 cm with thick walls and without internal hyperemia. The mass directly overlies peroneal tendons. The patient was recommended to have a contrast-enhanced MRI for further evaluation, but he was unable to follow up with MRI testing.

The patient was counseled to use pressure-relieving cushioning and to reposition sitting to distribute pressure more evenly on his foot. He was also recommended to use keratolytics, specifically urea cream 40%, under occlusion. After several months of pressure-relieving measures, the patient noticed mild symptomatic improvement, allowing the patient to continue utilizing his preferred method of prayer, which was his main priority. Since residual pain remained, a punch biopsy was recommended to rule out malignancy, but the patient declined.

Discussion

Prayer or athletes' nodules (collagenomas) are minimally symptomatic to asymptomatic, hyperplastic, flesh-colored masses. Prayer nodules arise from epidermal thickening resulting from repetitive, frictional trauma due to activities such as yoga or praying.¹⁻³ These nodules often occur on the forehead, hands, feet, and knees.⁴⁻⁶ The incidence is often higher in males and adults over 50 years of age.⁷ Differential diagnoses include lipoma, simple ganglion

cyst, gout, epidermoid cyst, hypertrophic scar, callus, and elastoma.⁸ Some prayer nodules may bleed if the patient has vascular disease or neuropathy.¹

A thorough history can aid in diagnosis, as in our case. If a punch biopsy is obtained, the histopathology will reveal hyperkeratosis, acanthosis, hypergranulosis, and dermal vascularization.^{2,7} Other than behavioral modification, such as the use of protective socks or prayer rugs, treatment is not necessary unless the nodule is bothersome to the patient.⁶ Treatment consists of surgical or laser removal, urea cream or salicylic acid, or intralesional steroids.^{4,6}

Conclusion

This case outlines the importance of thorough history-taking in patients who present with suspicious subcutaneous nodules. It also emphasizes the significance of inquiring about patients' daily activities to help determine the etiology of a nodule. Identifying prayer nodules as a source of collagenoma development can help avoid unnecessary workup and incorrect diagnoses of nodules, leading to improved patient outcomes (Figure 1).



Figure 1 Hyperkeratotic, hyper pigmented, and slightly eroded nodule on the left proximal lateral dorsal foot.

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Conflicts of interest

The authors declare they have no conflicts of interest.

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