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Figure. Sagittal sonographic images of the testicle by a trans-scrotal approach, obtained with a linear transducer. Diffuse echogenic foci are demonstrated throughout both testicles, consistent with diffuse deposition of calcifications.

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A 16-year-old male adolescent with no significant medical history presented to the emergency department (ED) with atraumatic left-sided scrotal pain. He denied associated symptoms, including fever, penile discharge, and urinary complaints. His vital signs, genitourinary examination results, and urinalysis results were normal. Ultrasonography was performed (Figure).

For the diagnosis and teaching points, see page e84.
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DIAGNOSIS:

Testicular microlithiasis. Testicular microlithiasis is a rare condition in which calcium clusters form in one or both testicles.[1] It is observed in up to 0.6% of patients undergoing scrotal ultrasonography. There is no definitive explanation of the cause of testicular microlithiasis. Some hypothesize that there is a genetic component. Testicular microlithiasis is associated with neoplastic germ cell tumor, infertility, cryptorchidism, Klinefelter's syndrome, and trisomy 21. Individuals with only testicular microlithiasis are often asymptomatic, and the diagnosis is usually found incidentally on ultrasonography. Symptomatic patients may report a dull discomfort. However, the physical examination result is generally unremarkable. Ultrasonography is the imaging modality of choice. Characteristic findings are multiple bright foci 1 to 2 mm in diameter, randomly distributed throughout the testicle or limited to part of the testicle, with little or no acoustic shadowing. Testicular microlithiasis can either be unilateral or bilateral. The number of calcifications visualized on ultrasonography can vary from 5 to more than 60.[2] Testicular microlithiasis may be linked to an increased risk of testicular malignancy, as well as an increased frequency of infertility. Management is controversial, but all cases identified in the ED should be referred for close outpatient urologic evaluation.[3] Our patient was referred to urology, where the diagnosis of testicular microlithiasis without associated disease was confirmed.

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