

## Dystrophic calcified nodule of the testicle: a case report

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### Abstract

Dystrophic calcified nodule of the testis was first reported by Minkowitz and colleagues in 1965, with few subsequent reports. The etiology of this lesion is controversial and unknown partly owing to its rarity. We report the case of a 29-year-old man who presented with generalized right testicular pain. His ultrasound demonstrated a discrete calcified lesion. A right radical orchiectomy was performed identifying a  $1.8 \times 0.8 \times 0.9$ -cm intratesticular calcific lesion with no evidence of intratubular germ cell tumour and negative tumour markers.

CUAJ 2007;1(4):402-3

### Case Report

A healthy 29-year-old man presented to the emergency department with an acute scrotum. The patient had a 1-month history of generalized scrotal and right testicular discomfort. There were no changes to the superficial skin or testicular size over this period. The patient denied any constitutional symptoms.

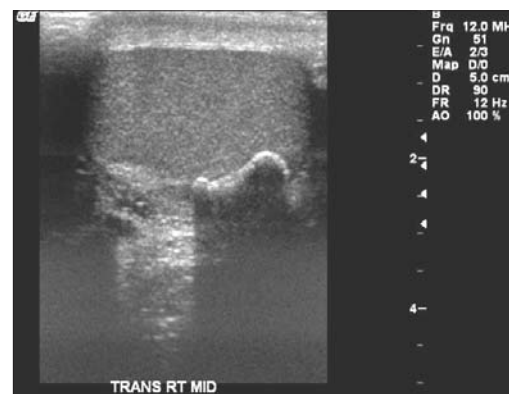
On examination, the patient's scrotal skin appeared normal and his right testicle, although difficult to examine secondary to pain, was palpably larger than his left. The testicle could not be transilluminated, and there was no evidence of inguinal pathology. We ordered an ultrasound to further characterize his testicular pathology (Fig. 1). Concurrently,  $\beta$ -HCG and  $\alpha$ -fetoprotein were obtained and reported as negative.

A  $1.4 \times 1.0$ -cm calcified lesion was identified in the medial aspect of the patient's right testicle posteriorly. Acoustic shadowing was noted with no other focal abnormalities seen within the testicle. Doppler investigation revealed adequate blood flow to both testicles, with no evidence of hypervascularity to signify an acute inflammatory process. After a thorough discussion with respect to the nature of the lesion and the possibility of malignancy, a radical orchiectomy was performed.

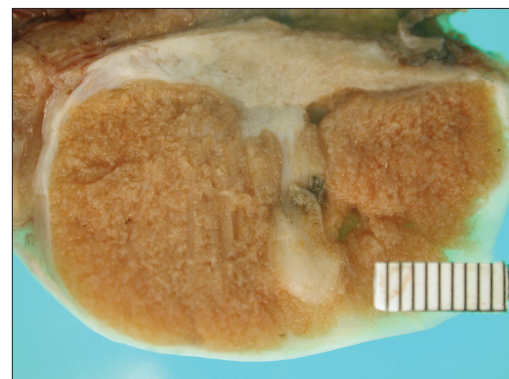
Figure 2 illustrates the gross examination of the testicle measuring  $6.0 \times 4.0 \times 3.5$  cm. Within the parenchyma was a hard, well-circumscribed mass measuring  $1.8 \times 0.8 \times 0.9$  cm in greatest dimension and surrounded by fibrous capsular tissue. Histological evaluation (Fig. 3) revealed distinct osteoblastic activity and calcification with no evidence of intratubular germ cell neoplasia. No calcification was noted beyond the fibrous capsular border of the lesion or into the seminiferous tubules. A teratomatous component was not identified within the sections, and there was no evidence of necrosis, hematoma or active epididymo-orchitis. Based on gross and microscopic findings, a diagnosis of an intratesticular calcified nodule was made.

### Discussion

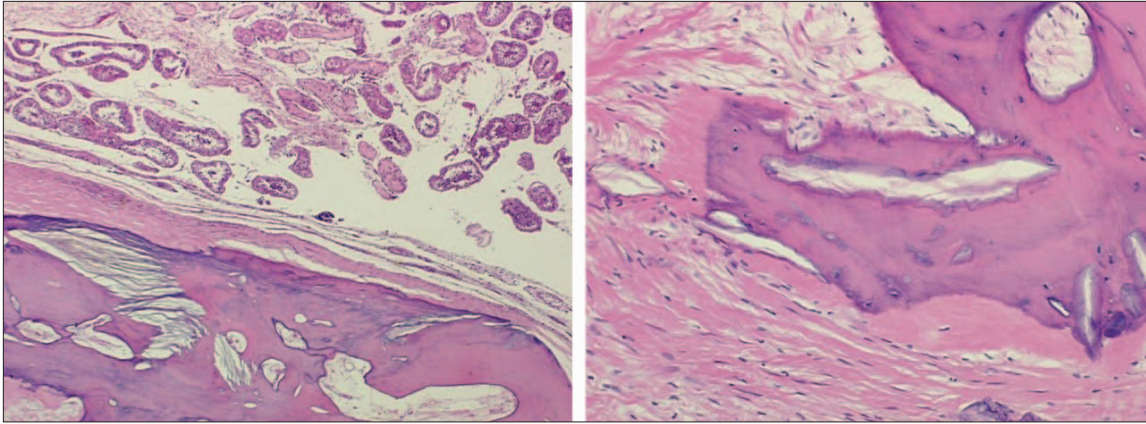
The etiology of an intratesticular calcified nodule has been elusive following its initial presentation in 1965.<sup>1</sup> There is a subsequent report, by Yoneda and colleagues,<sup>2</sup> of a patient receiving radiotherapy for seminoma. Further cases, depicting ossifying testicular lesions with hair matrix differentiation<sup>3</sup> and mucin producing tumours of the testicle,<sup>4</sup> have surfaced. Mesia and colleagues described a monodermal ter-



**Fig. 1.** Transverse ultrasound of the right mid testicle demonstrating linear calcification with posterior shadowing measuring 1.4 cm.



**Fig. 2.** Gross specimen of the right testicle demonstrating a 1.8-cm intratesticular mass composed of bone, calcified tissue and a surrounding fibrous capsule.



**Fig. 3.** Histology of the intratesticular well-circumscribed encapsulated nodule composed of thickened bony trabeculae showing (left) adjacent normal seminiferous tubular architecture (hematoxylin–eosin stain, original magnification 40 ×). Histology of the intratesticular nodule demonstrating (right) peripheral osteoblastic activity at the rim of trabeculae (hematoxylin–eosin stain, original magnification 100 ×).

atomatous tumour demonstrating follicular differentiation with secondary heterotopic ossification. Our patient, however, presented with a primarily calcified lesion without evidence of differentiation into other cell lines, no evidence of peripheral malignancy and negative tumour markers. A “burned out” primary testicular tumour, although rare,<sup>5</sup> can present with testicular calcification in a more diffuse pattern. Based on the histological findings, a diagnosis of an intratesticular calcified nodule can be made and malignancy, whether active or “burned out,” can be excluded.

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This article has been peer reviewed.

**Competing interests:** None declared.

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