ADENOMATOID TUMOUR PRESENTING AS AN INDETERMINATE TESTICULAR MASS: A DIAGNOSTIC DILEMMA

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STATEMENT OF THE PROBLEM

This case report describes a 33-year-old man with an indeterminate right testicular mass, diagnosed histopathologically as an adenomatoid tumour. These rare, benign mesothelial neoplasms typically arise in the epididymis and paratesticular structures but can mimic malignant testicular tumours. Histopathology, supported by immunohistochemistry where necessary, is essential for accurate diagnosis and exclusion of malignancy.

METHODOLOGY AND THEORITICAL ORIENTATION

A retrospective case review was conducted of a 33-year-old man presenting with an indeterminate mass in the lower pole of the right testis and an elevated serum lactate dehydrogenase (LDH) level. Following right radical orchidectomy, the specimen was submitted for histopathological examination to establish the definitive diagnosis and characterise the lesion.

FINDINGS

Histology showed a 5 mm fairly well circumscribed paratesticular mass arising from the tunica vaginalis and focally compressing but not infiltrating the testicular parenchyma. The lesion was composed of closely packed acinar structures lined by bland cuboidal cells and interspersed by fibrocollagenous vascularised stroma. The lining cells were positive for AE1/3, calretinin, D2-40 and WT-1, but negative for BerEP4, inhibin and SALL4. The morphology and immunoprofile were in keeping with an adenomatoid tumour. There was no evidence of malignancy seen. The testicular parenchyma, spermatic cord and the paratesticular structures elsewhere from the tumour were histologically unremarkable.

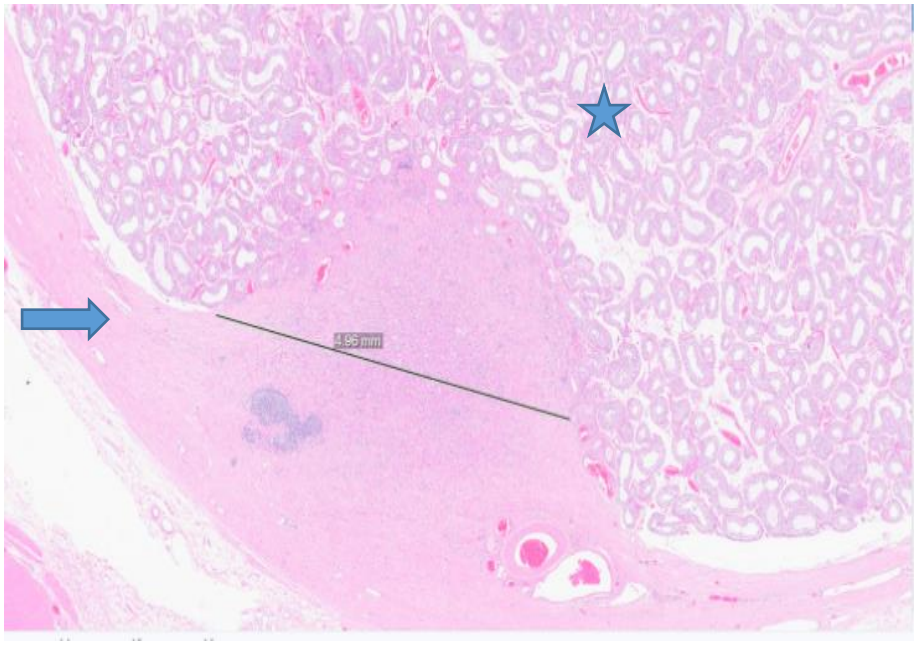


FIG 1. Adenomatoid tumour well circumscribed and measuring <5 mm, arising from the tunica vaginalis (arrow). The rest of the testis shows normal semineferous tubules (star). The paratesticular structures showed no anomalies *(H&E X 40*).

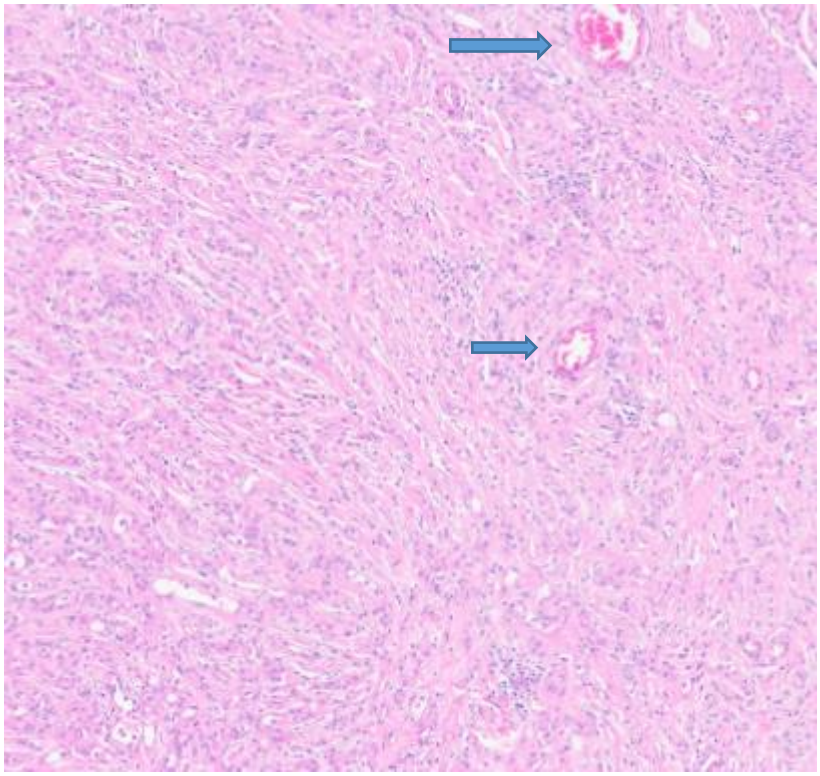


FIG 2. Core of the tumour at higher magnification demonstrating closely packed acinar (gland-like) structures (arrows) lined by bland cuboidal cells which show no atypical features *(H & E X 200).*

CONCLUSION AND SIGNIFICANCE

Adenomatoid tumours are rare benign mesothelial neoplasms that may present as indeterminate testicular masses. This case highlights the importance of histopathological examination in establishing a definitive diagnosis and expanding the understanding of uncommon testicular lesions.

BIOGRAPHY



Dr Peculiar Ajayi is affiliated with East Suffolk and North Essex NHS Foundation Trust in the United Kingdom. Her clinical and academic interests include histopathology and diagnostic medicine, with a focus on improving diagnostic accuracy, promoting evidence-based practice, and enhancing patient care through clinical practice, research, and education.

Dr Ajayi is the first author of the case report, *"**Adenomatoid Tumour Presenting as an Indeterminate Testicular Mass: A Diagnostic Dilemma**."* This report contributes to the limited literature on adenomatoid tumours presenting as indeterminate testicular masses and highlights the diagnostic challenges posed by these rare, benign mesothelial neoplasms, which can mimic malignant lesions. The report emphasises the importance of histopathological examination, supported by immunohistochemistry where appropriate, in establishing an accurate diagnosis, distinguishing benign lesions from malignancy, guiding clinical decision-making, and ensuring appropriate patient management.