Ectopic prostatic tissue in the perineum

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DESCRIPTION

Ectopic prostatic tissue is rare and <50 cases have been reported in the literature. The most common reported location is the trigone of the urinary bladder and rarely at the bladder neck or periurethral location.¹ Postulated aetiology of prostatic ectopia include the persistence of prostatic tissue during embryogenesis, or metaplasia of the urinary epithelium due to chronic inflammation, or even migration of prostatic stem cells.²⁻⁴

We present a 72-year-old man with a 1-week history of progressively worsening obstructive lower urinary tract symptoms culminating in overt acute urinary retention of >1 L. This was acutely managed with an indwelling catheter. His medical history included hypertension and gastro-oesophageal reflux. His international prostate symptom score was 6 prior to the onset of symptoms, and a digital rectal examination revealed a mildly enlarged benign prostate. The prostate-specific antigen (PSA) was 7.0 µg/L. MRI of the prostate showed Prostate Imaging Reporting And Data Systems 3 lesions along with a solid lesion distal to the prostatic apex in the midline, completely separate from the prostate (figure 1). This lesion was smooth, well circumscribed and appeared benign. A cystoscopy revealed no intraluminal urethral lesions with a mildly enlarged, non-occlusive prostate and unremarkable bladder. The patient underwent a systematic transperineal prostate biopsy with additional cores taken corresponding to the extraprostatic perineal lesion on MRI. Histopathology showed benign prostatic hyperplasia of the extraprostatic perineal lesion and Grade Group 2 adenocarcinoma within the prostate.

Ectopic prostatic tissue has been described widely throughout the body, most commonly in the urethra, seminal vesicles, epididymis, testis and urinary bladder.⁵⁻¹⁰ Clinically, they present with lower urinary tract symptoms; haematuria being most common but obstructive symptoms such

Learning points

- ▶ Ectopic prostate tissue (EPT) distal to the apex of the prostate is a rare entity, as it is commonly located on the trigone of the bladder.
- ▶ MRI is a sensitive imaging modality for detecting EPT.
- ▶ It may be a rare cause of persistently raised prostate-specific antigen following a radical prostatectomy.
- ▶ It should be considered in the differential diagnosis of a palpable lump on digital rectal examination.

as urinary frequency and retention also feature. Outside of the genitourinary system, ectopic prostatic tissue is a distinctly uncommon phenomenon but has been reported in the spleen, rectum and uterine cervix, as well as in ovarian teratomas.¹¹⁻¹³

Various aetiologies have been postulated for ectopic prostate tissue. In the prostatic urethra and bladder trigone, this may represent a vestigial remnant from embryogenesis, while for other sites metaplasia and aberrant embryogenesis via 'migration' or 'misplacement' of prostate glands have been described.^{10 12}

Generally if the lesion is asymptomatic and benign, resection is not indicated. However, it should be noted that this tissue will be a source of PSA. Primary adenocarcinoma arising from ectopic prostatic tissue has been reported.^{14 15} A 5-mm cystic bladder lesion was found to be prostatic adenocarcinoma on resection (Gleason 4+3=7).¹⁴ Furthermore, a report of ectopic prostate cancer (Gleason 4+3=7) in the seminal vesicles surrounded by normal prostatic glands with a transrectal prostate biopsy showing no intraprostatic cancer was managed with radiotherapy and hormonal treatment.¹⁵ Ectopic prostatic tissue is a rare entity but significant as it may be a site for primary prostate cancer and will cause a persistently raised PSA following a radical prostatectomy.

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Figure 1 MRI of the prostate with (A) sagittal T2 weighted (T2W) and (B) coronal T2W images showing the prostate gland (solid arrows), ectopic prostate tissue (solid arrowhead) and urethral sphincter (open arrowhead).

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