# The Prostate Problem You Can't Put Your Finger on the Normal Way: A Case of Perineal Prostate Cancer Post Transperineal Prostate Biopsy

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Transperineal biopsy needle-tract tumour seeding is a rare complication, with sparse published literature[1]. We describe the management of metastatic prostate cancer secondary to transperineal biopsy needle-tract seeding.

An 80-year-old male presented with an otherwise asymptomatic, hard perineal mass that had progressively enlarged over a few months. The patient's urological history included prostate adenocarcinoma of the right prostatic-apex, prostatic urethra, and lymph nodes (ISUP-Grade 4 [4 + 4 = 8], PIRADs-5, PSA-level 2.7 $\mu$ g/L), diagnosed via transperineal biopsy and TURP 3 years prior. His prostate cancer was definitively managed with TURP, ADT, and radiotherapy with a post-treatment PSA-level of 0.05 $\mu$ g/L.

On pelvic examination, a perineal 2cm fixed lump was palpable. Pelvic-MRI demonstrated a 20mm irregular mass in the perineal fat immediately below the penile base (Figure 1A). Repeat PSA-level was  $6.0\mu g/L$ . Subsequent PSMA PET-scan revealed a PSMA-avid lesion in the perineal midline, consistent with prostatic neoplasm metastasis without other metastatic disease (Figure 1B). Cystoscopy showed no obvious urinary-tract cancer recurrence.

The patient's case was discussed in a multi-disciplinary team meeting and excision was recommended. The patient then underwent a wide-local excision, requiring partial resection of bulbar-spongiosum (Figure 1C). Histopathology revealed a complete excision of his prostate adenocarcinoma metastasis, with post-excision PSA-levels of  $0.12\mu g/L$ . No adjuvant therapies were given.

Needle-tract seeding following transperineal prostate biopsy is rare and should not preclude patients from undergoing biopsies. This case highlights the need for patient follow-up after cancer treatment and exemplifies the practicality of PSMA PET-scans if there is evidence of rising PSA-levels after definitive prostate cancer treatment.

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# Reference

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## **Key Words**

Prostatic neoplasm, needle biopsy, neoplasm metastasis, prostate-specific antigen, early detection of cancer

## **Competing Interests**

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## FIGURE 1A.

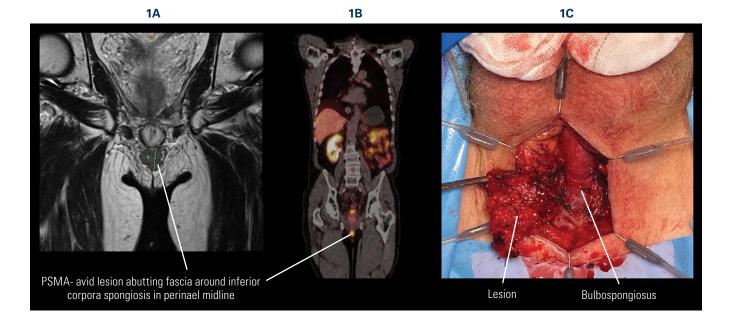
Pelvic-MRI. Mass in perineal fat abutting fascia around inferior corpora spongiosis.

#### FIGURE 1B.

PSMAPET (ongoing resolving right prostatic posterolateral peripheral zone and equivocal left pre-sacral node uptake. New PSMA-avid lesion in the perineal midline (SUV-max 21.7)

#### FIGURE 1C.

Intraoperative image demonstrating perineal metastatic lesion abutting bulbospongiosus. The urethra, however, was clear of disease.



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