Large cystic ductal carcinoma of the prostate: imaging findings and minimally invasive surgical treatment

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DESCRIPTION

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Prostatic ductal carcinoma (PDC) is a rare histological subtype of prostate cancer usually diagnosed in a more advanced stage, presenting with a higher mortality rate than acinar prostate carcinoma.¹⁻³

A 65-year-old asymptomatic man presented with a pelvic cystic lesion diagnosed during a routine ultrasound. The prostate specific antigen (PSA) level was 3.5 ng/mL and digital rectal examination revealed a large cystic mass in the prostate topography. MRI showed a large multiloculated contrast-enhanced cystic lesion with thick septations arising from the retroprostatic and left pararectal space $(6.5 \times 5.0 \times 5.0 \text{ cm};$ figure 1). Prostate biopsy revealed a prostatic acinar carcinoma in 1 of 14 cores (Gleason 7) located in the right mid, associated with a PDC in 3 of 14 cores

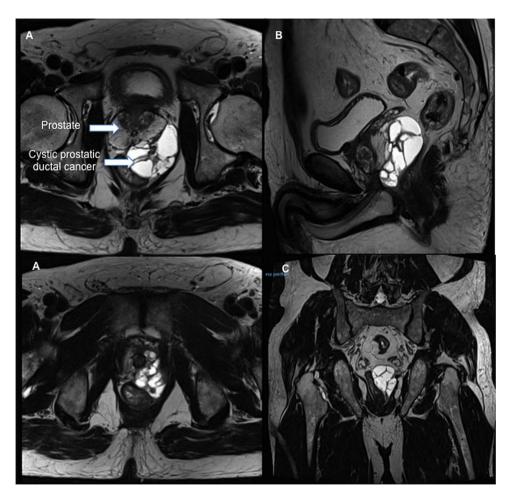




Figure 1 MRI showing a large multiloculated contrast-enhanced cystic lesion. (A) Axial view, (B) sagittal view and (C) coronal view.

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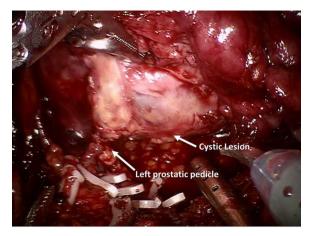


Figure 2 Intraoperative view.

located in the left lateral base of the prostate. Immunohistochemistry analysis was positive for PSA and α -methylacyl coenzyme A racemase (AMACR). CT scan and bone scan were negative for metastasis. Based on these findings, the patient underwent a robotic-assisted

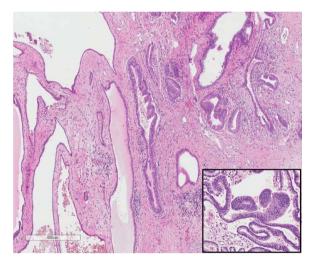


Figure 3 Pathological examination revealing large glands lined by tall, pseudostratified epithelium.

laparoscopic prostatectomy with pelvic lymphadenectomy (figure 2). There were no intraoperative or postoperative complications. Pathological examination showed a prostatic acinar carcinoma Gleason 7 (4+3) associated with a PDC in 30% of the gland with no positive lymph nodes (0/20). Extensive extracapsular extension was present in the left base; the surgical margins were negative (pT3aN0; figure 3). After 12 months of follow-up the patient has no evidence of disease and serum PSA level is undetectable.

To the best of our knowledge, this is the first robotic-assisted prostatectomy for management of large PDC, showing that it is a treatment option for this uncommon condition.

Learning points

- Prostatic ductal carcinoma (PDC) is a rare histological subtype of prostate cancer.
- ► MRI is a useful tool for PDC diagnosis.
- Minimally invasive surgery is an option for treatment of this uncommon condition.

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