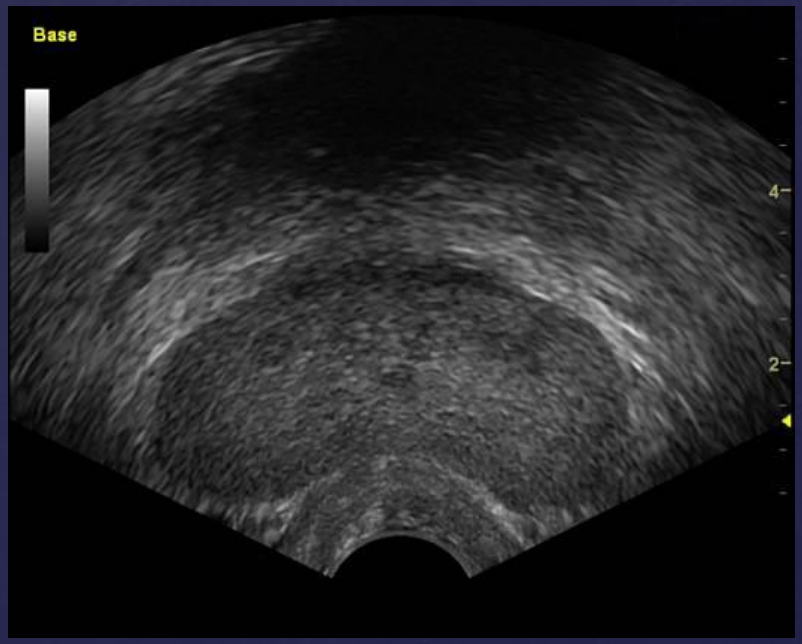
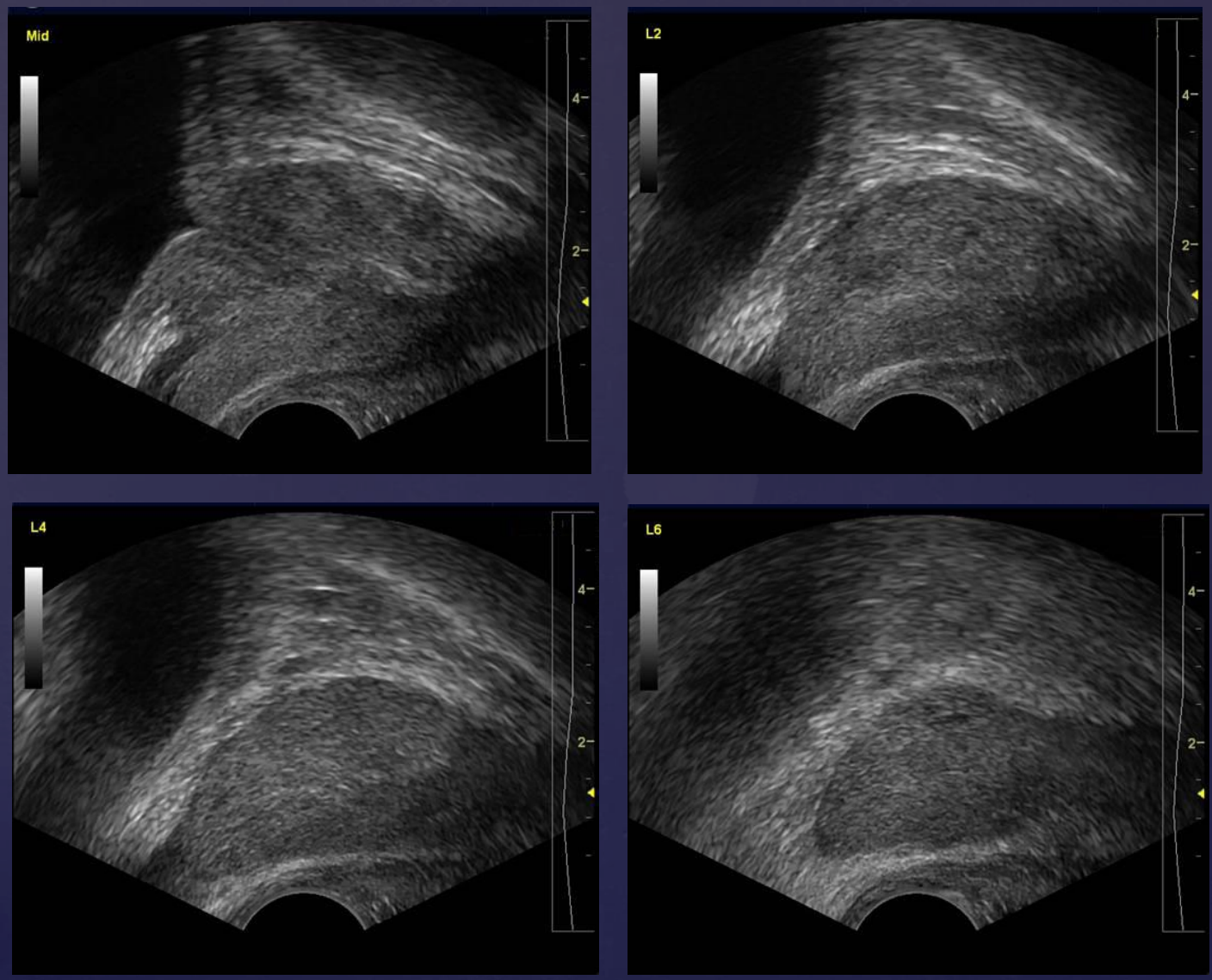
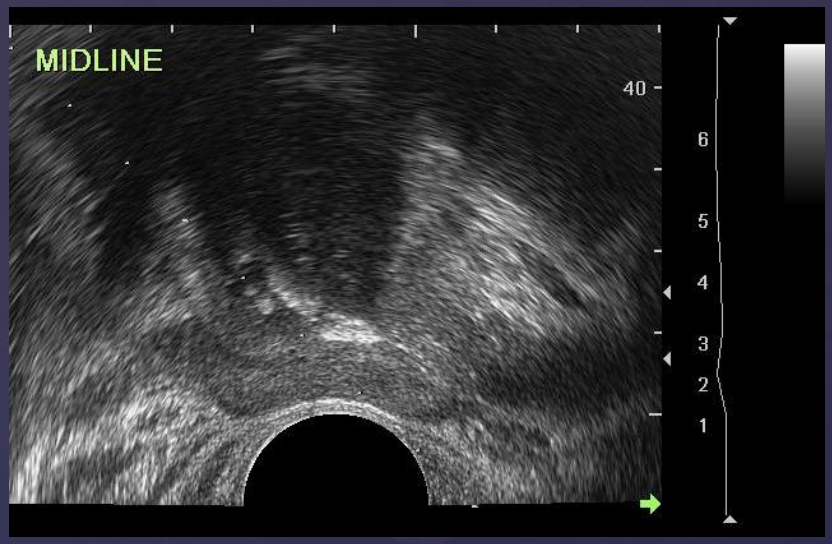
AIUM Image Library: Prostate (and Surrounding Structures)

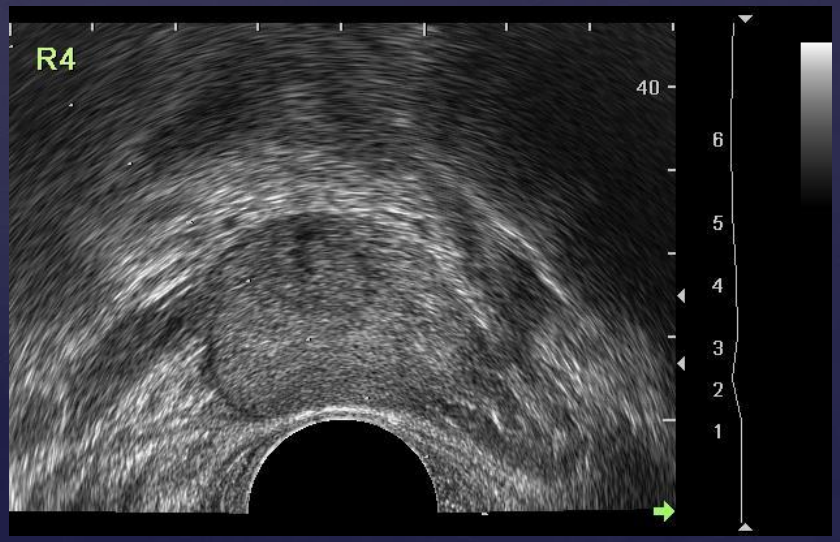


Standard sagittal images of the left lobe of the prostate at the midline (mid), plus 20 degrees (L2), plus 40 degrees (L4), plus 60 degrees (L6)

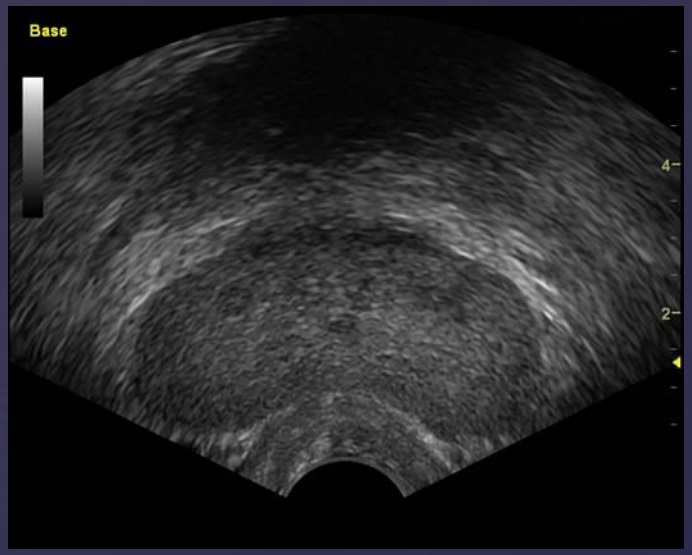


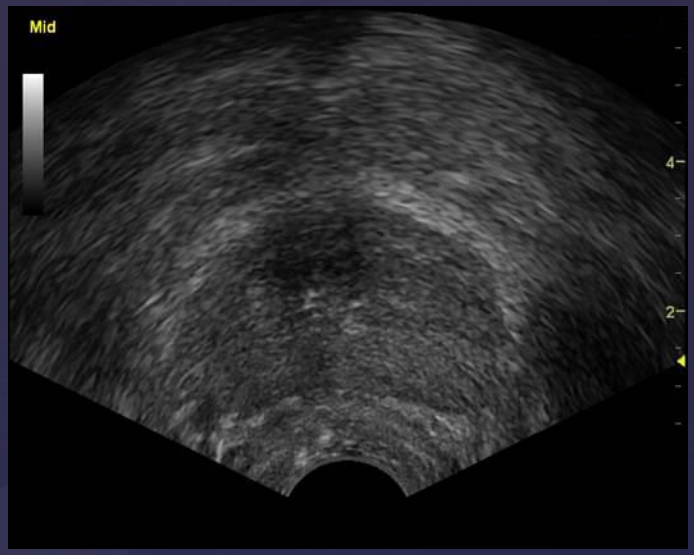
Standard sagittal images of the right lobe of the prostate at the midline, plus 20 degrees (R2), plus 40 degrees (R4), plus 60 degrees (R6).

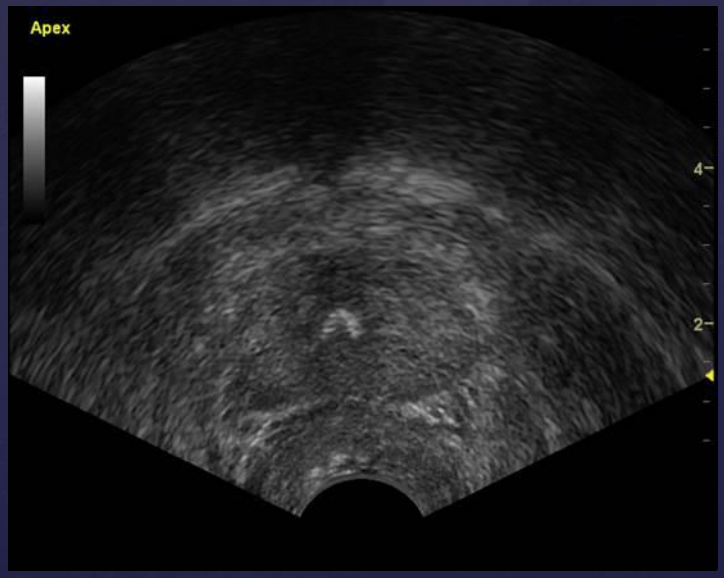




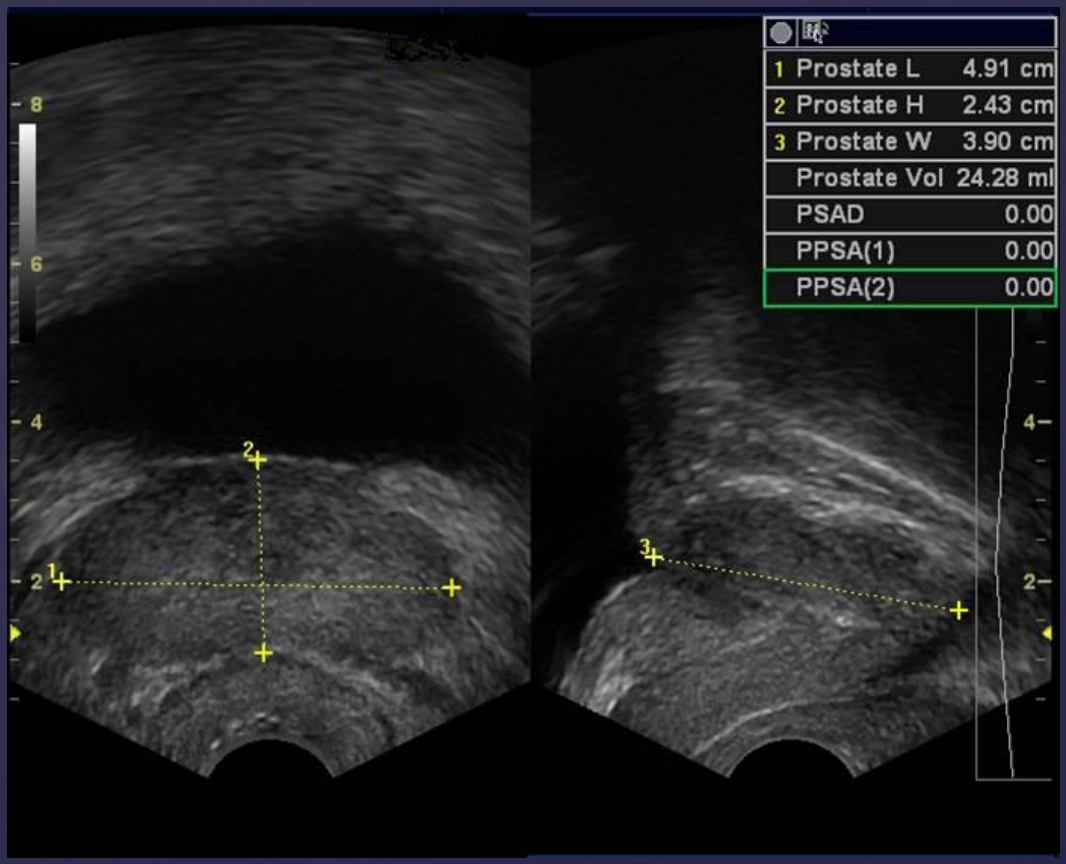
Standard axial images of the prostate at base, mid, and apex







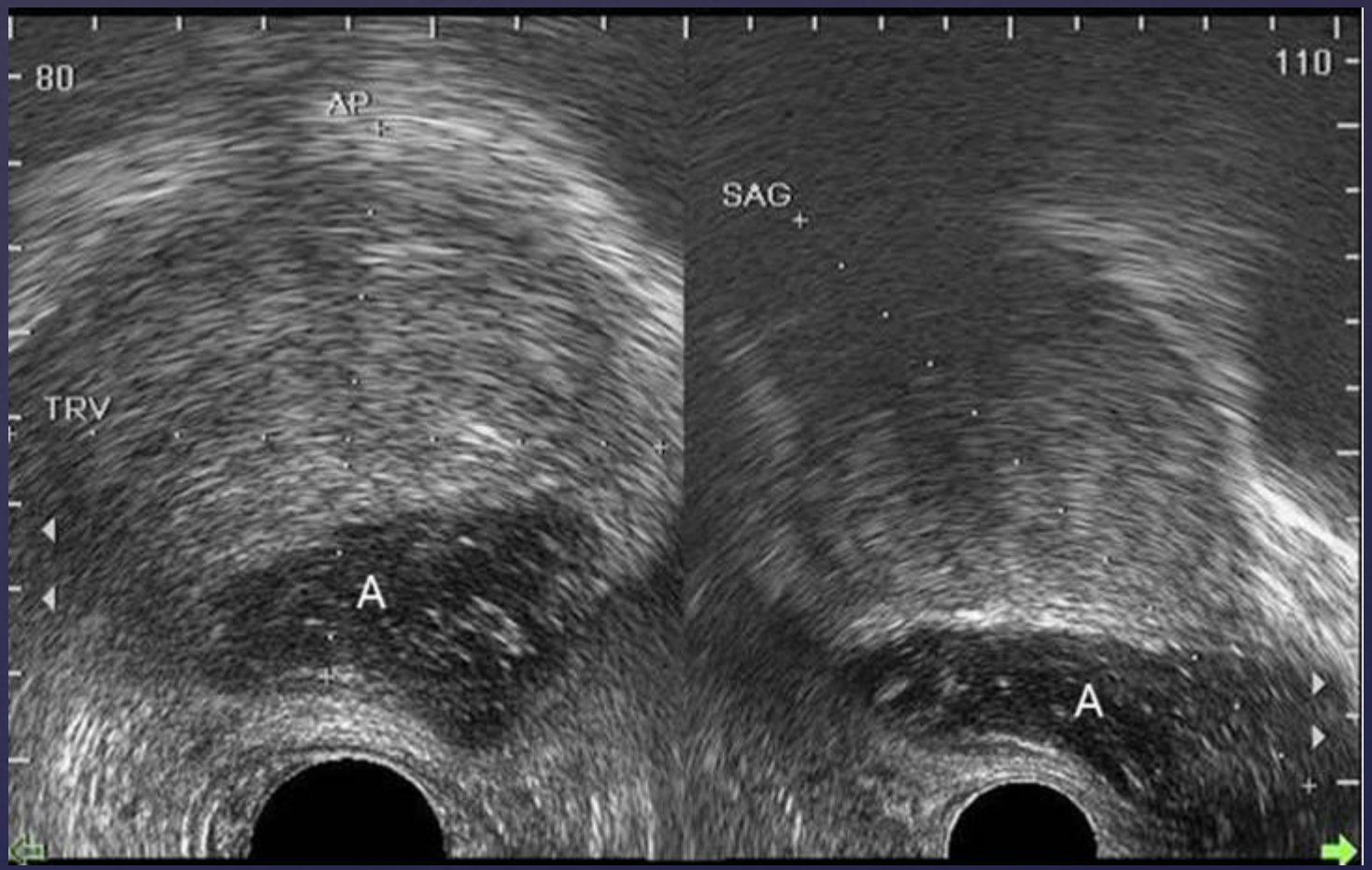
Prostate Volume



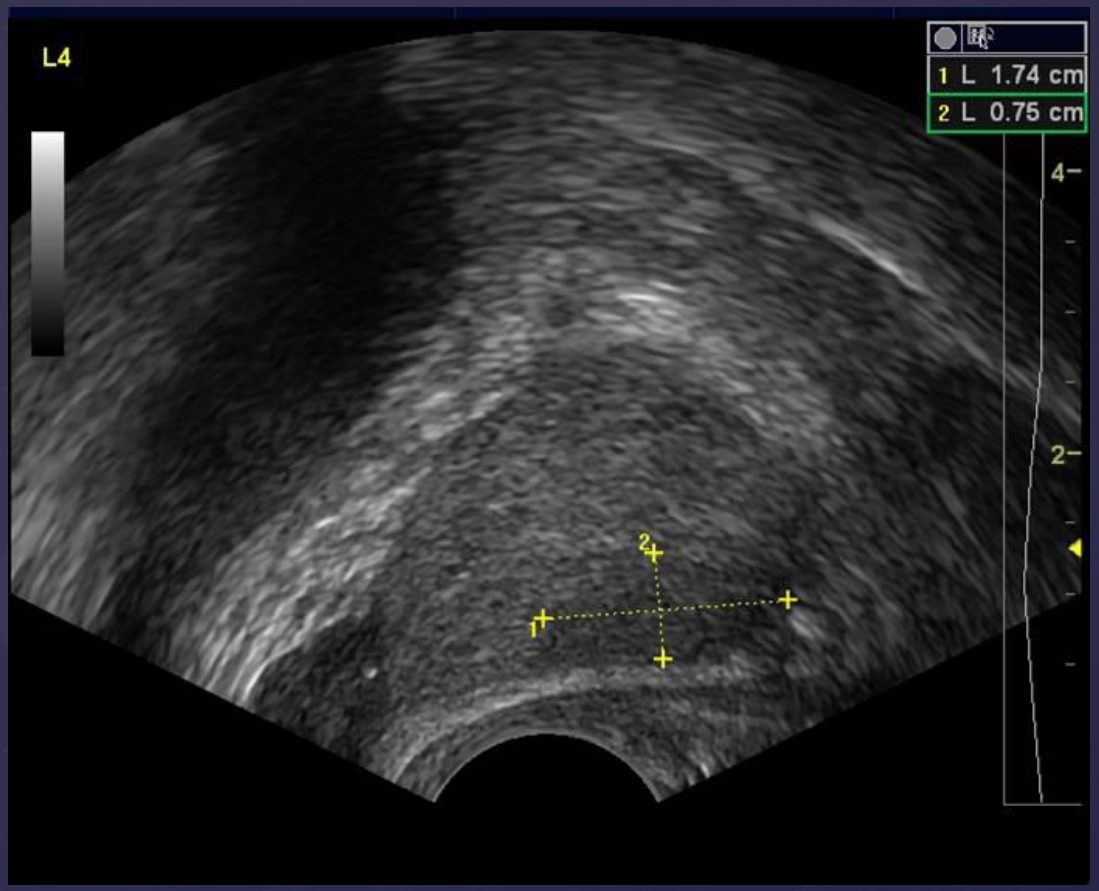
Axial view Sagittal view

The prostate volume is obtained by measuring the prostate in three planes. In the axial view the width (1) and height (2) are measured. In the sagittal view the length (3) of the prostate is measured. The prostatic volume is calculated as 24.28 ml.

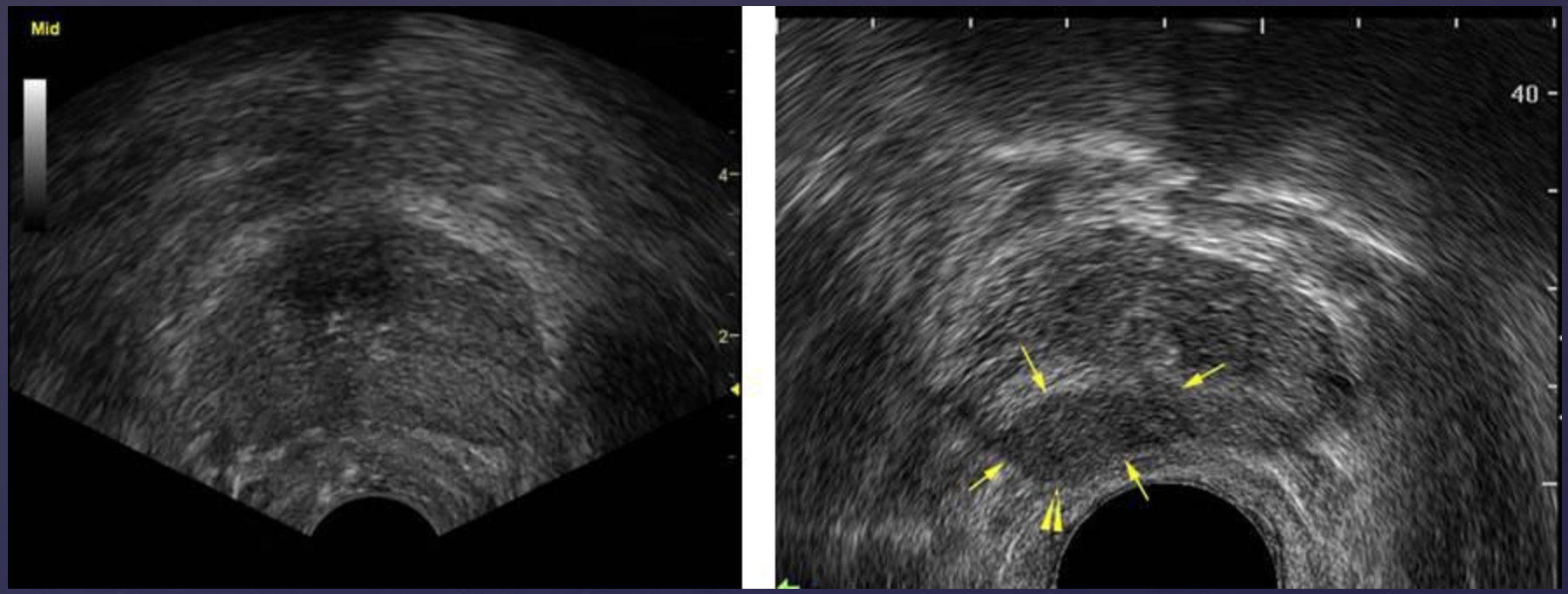
Prostate Abscess



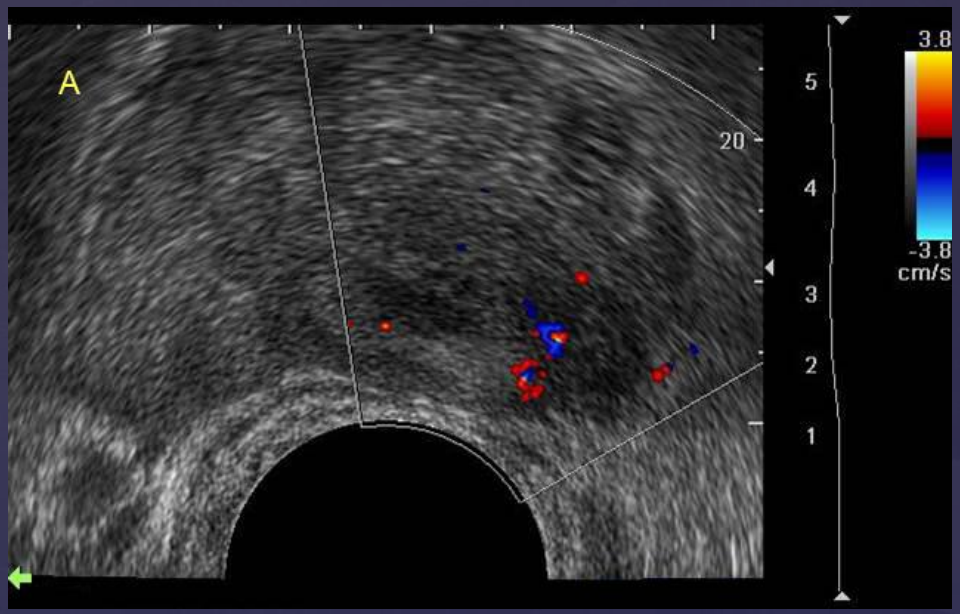
The prostate should be evaluated for abnormal areas.
In this case, a prostatic abscess (A) is noted.

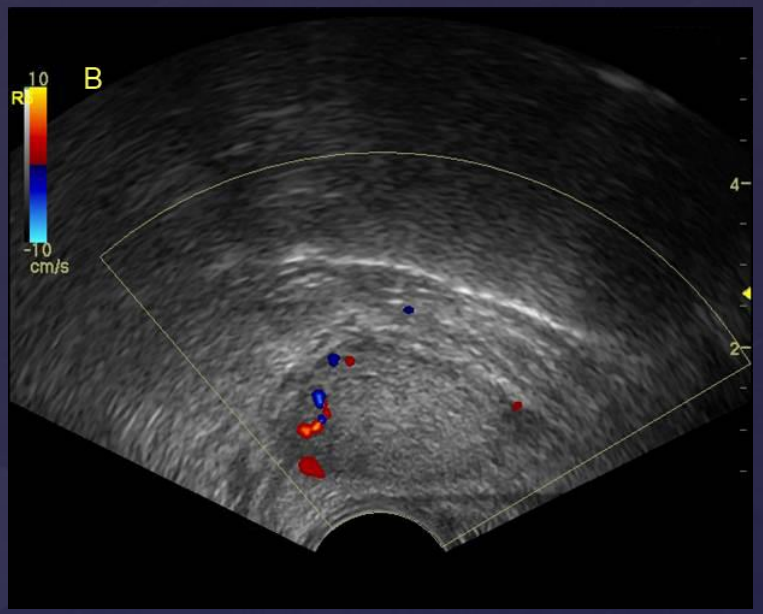


The echogenicity of the prostate should be evaluated and documented. In this sagittal image there is a hypoechoic area of the prostate at 40 degrees left of the midline. The hypoechoic area may represent prostate cancer. The hypoechoic area measures 1.74 x 0.75 cm. The pathology showed prostate cancer in the left lateral apex, Gleason 3+3=6 in 4% of the biopsy core.

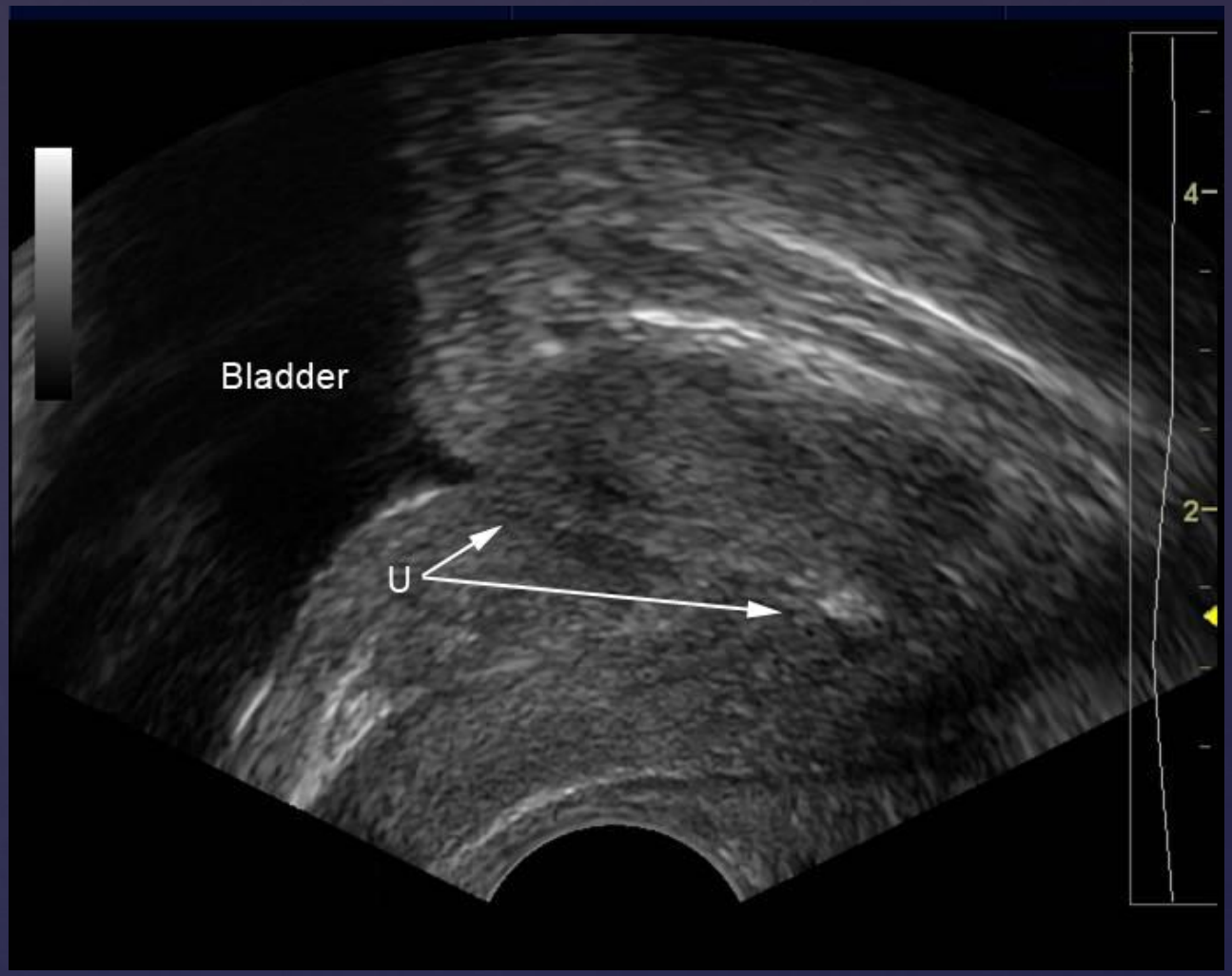


The symmetry of the prostate and the continuity of the margins of the prostate are evaluated. In the image on the left the prostate is symmetric with continuous margins. In the sagittal image on the right there is bulging of the prostatic capsule (arrowhead) at the right base along with a hypoechoic area (arrows).

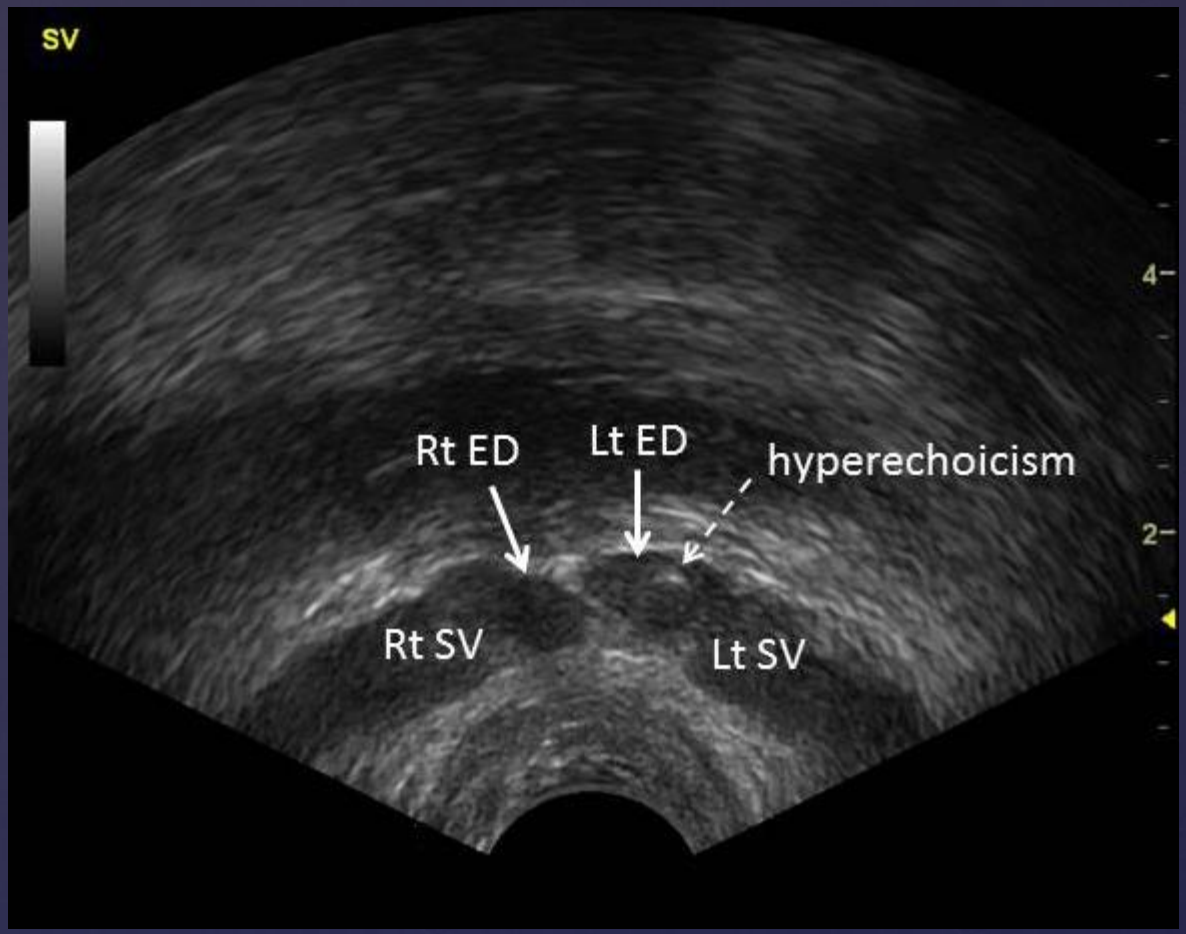




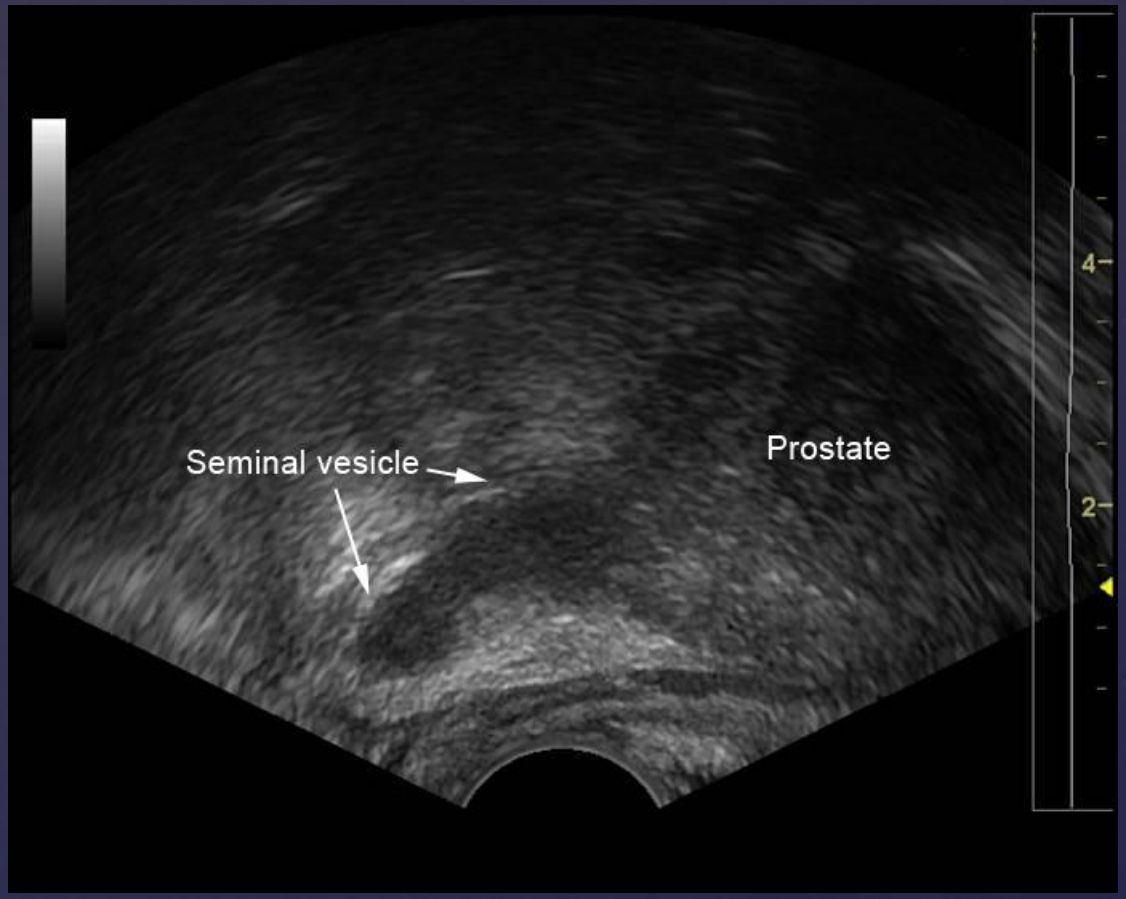
(A) Color Doppler of the prostate in transverse view demonstrating increased regional blood flow. (B) A sagittal view showing increased vascularity in the base of the prostate. These are images of two different patients whose pathology returned positive for prostate cancer in the areas of hypervascularity.



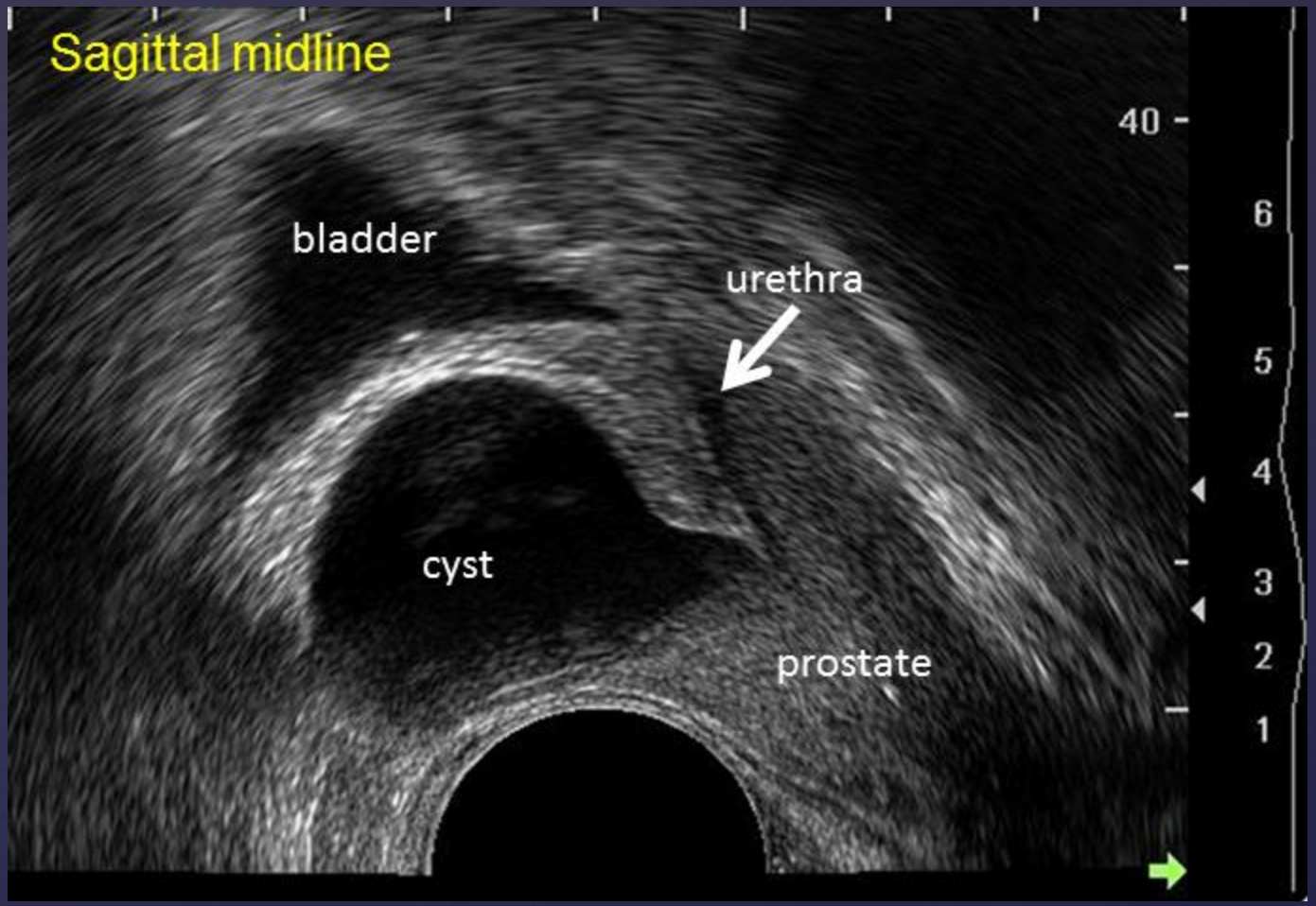
Mid sagittal view of the prostate demonstrating the course of the urethra (U) through the prostate.



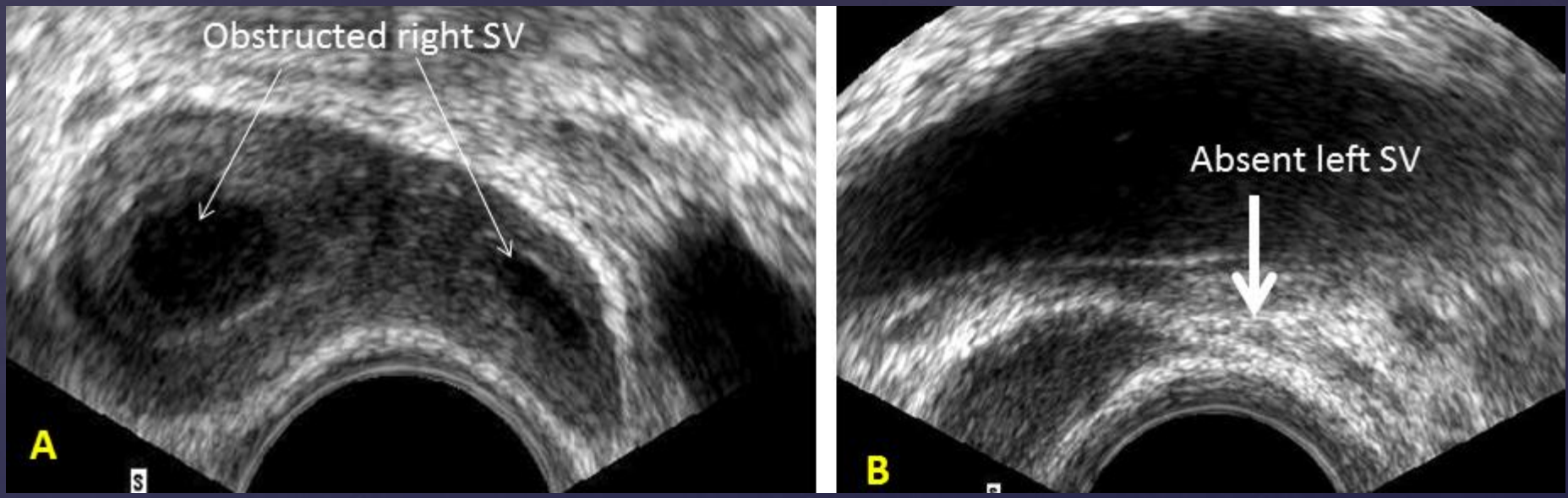
Axial view of the prostate demonstrating the right and left seminal vesicles (SV) and the right ejaculatory duct (Rt ED) and the left ejaculatory duct (Lt ED). There is a hyperechoic area (dashed arrow) in the left ejaculatory duct which is consistent with a small calcification.



Sagittal view of the prostate demonstrating the left seminal vesicle.



Midline sagittal view of the prostate with a utricular cyst.



(A) Obstructed right seminal vesicle in the sagittal view.

(B) The transverse image demonstrates the absence of a left seminal vesicle.

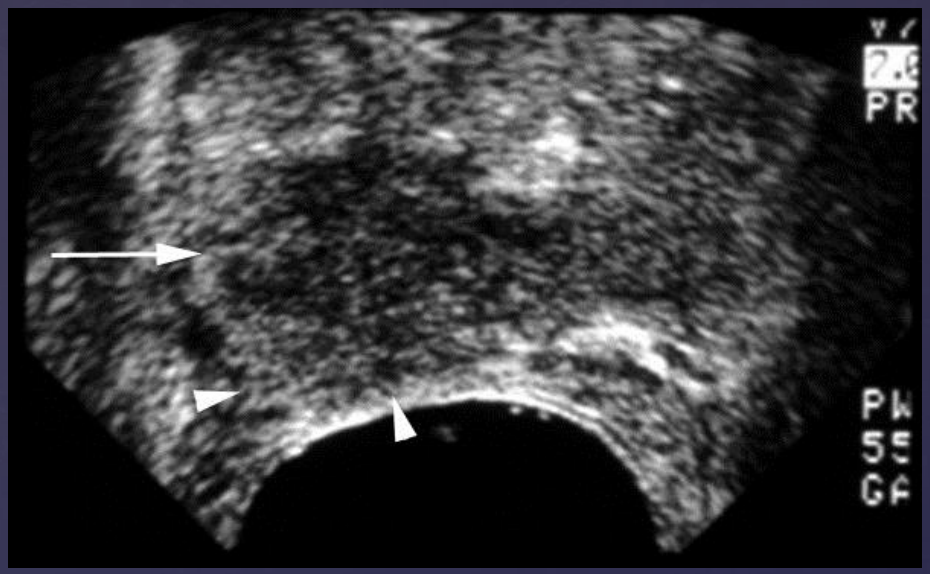


Image 1

Image 2

Transverse images of the prostate in two patients with prostate cancer. The tumor appears hypoechoic in each case (arrow), while the periprostatic fat planes are echogenic (arrowheads).

The perirectal fat planes are preserved in the setting of a Gleason 8 lesion (image 1), while the same fat planes are invaded and obliterated by the Gleason 7 tumor (image 2)."