

Testis diameters

longitudinal

lateral-medial

anterior-posterior

(length)

(width)

(height)

L

W

H

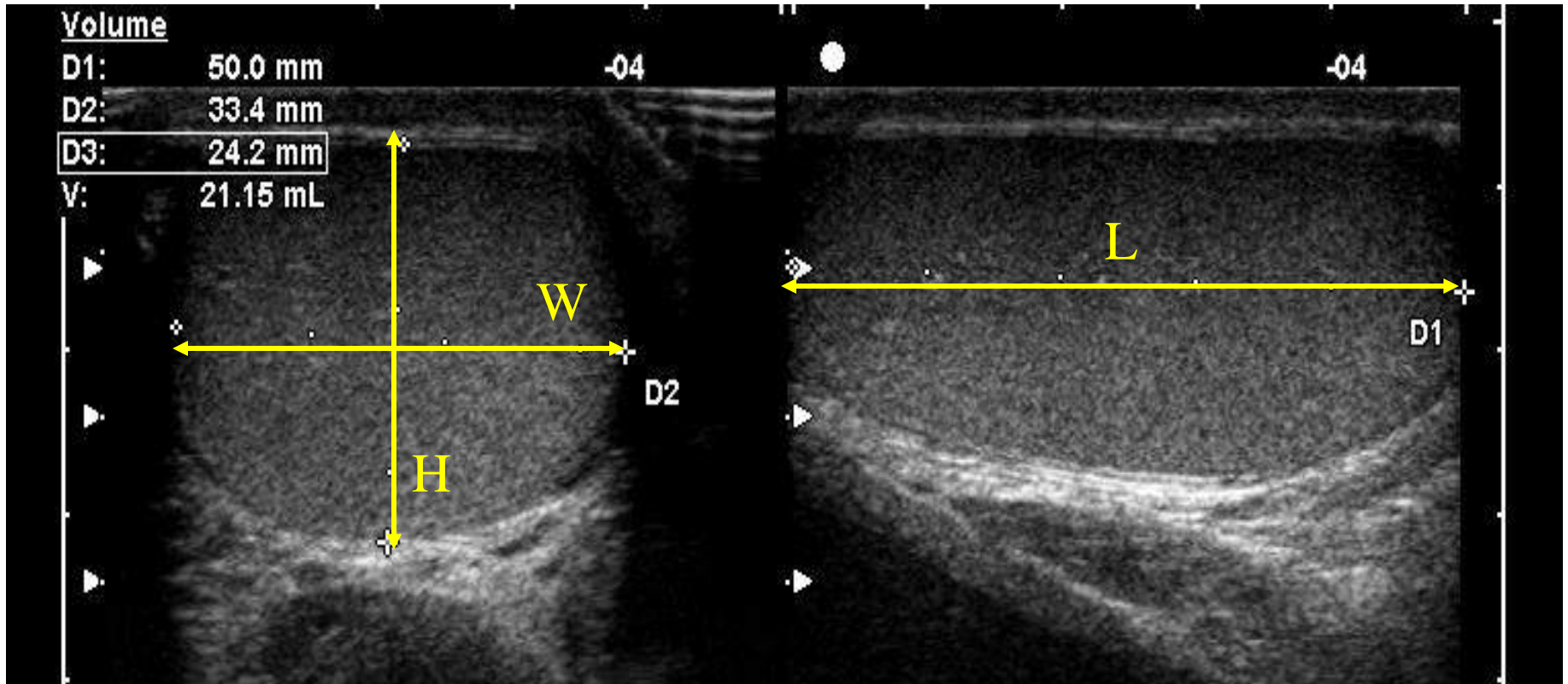
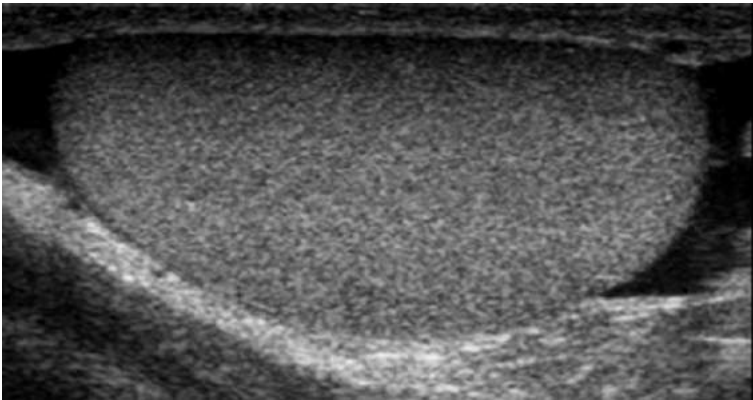


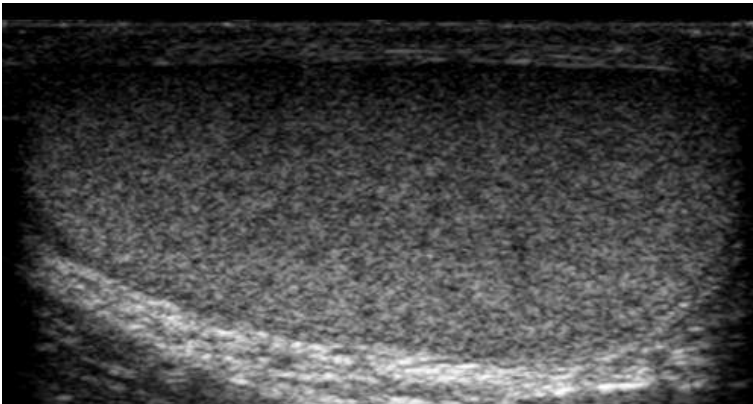
Fig. 1

Testis homogeneity

0.Homogeneous



1.Mild
inhomogeneity
(little hypoechoic areas)



2.Moderate-severe
inhomogeneity
(hypoechoic striae)

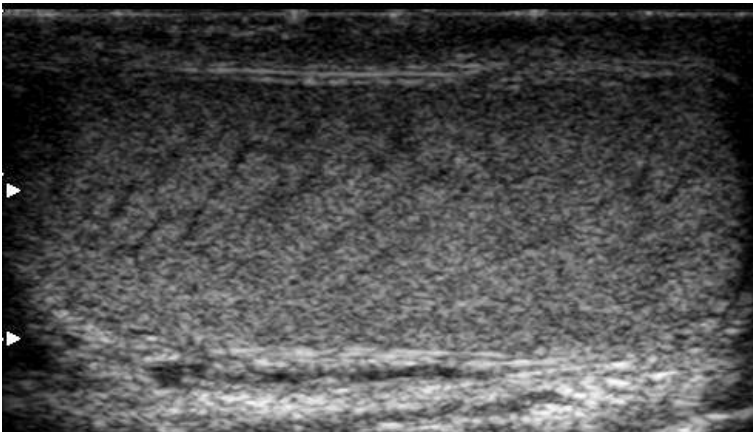
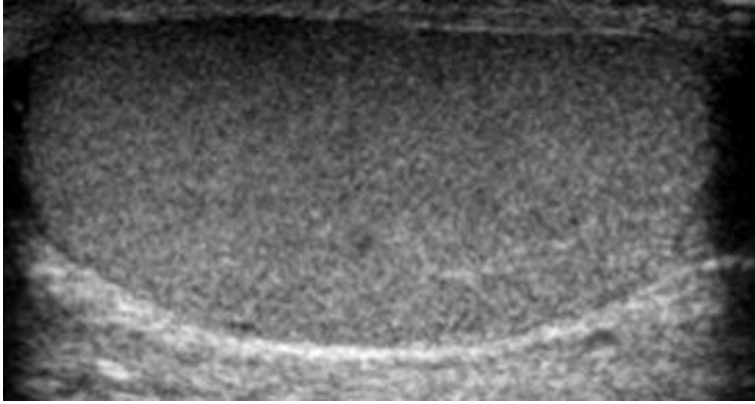
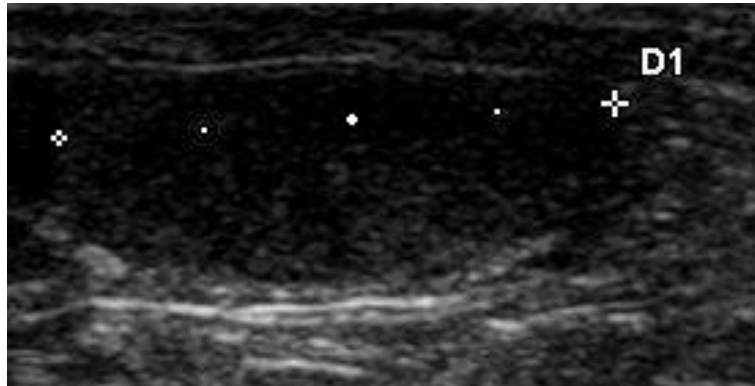


Fig. 2

Testis echogenicity



0. Normal echogenicity



1. Hypoechoic

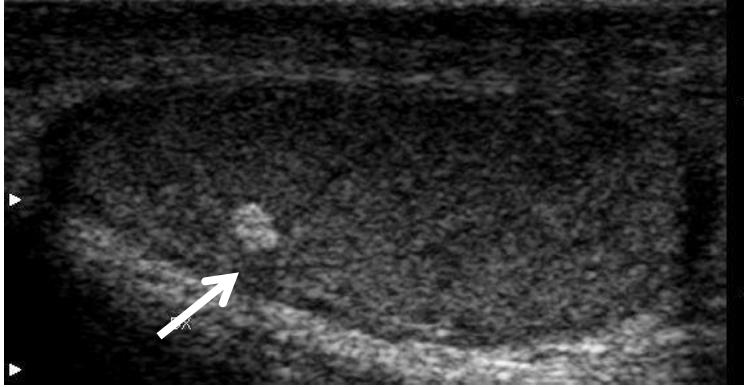


2. Hyperechoic

Fig. 3

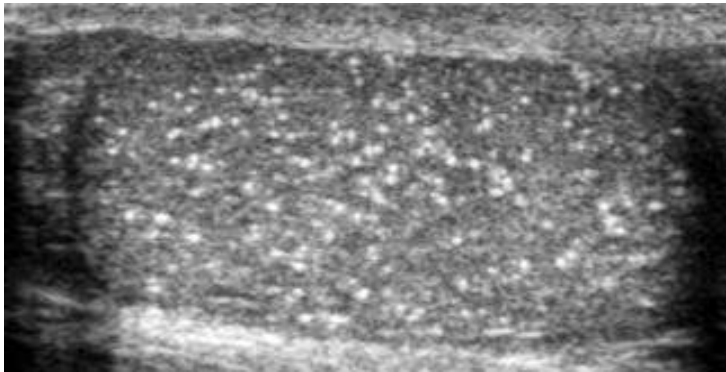
Testis calcifications

A



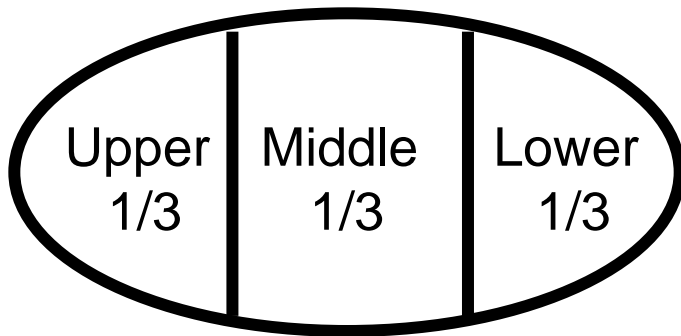
Single calcification,
macro-calcification (> 3 mm),
one calcification/US field

B



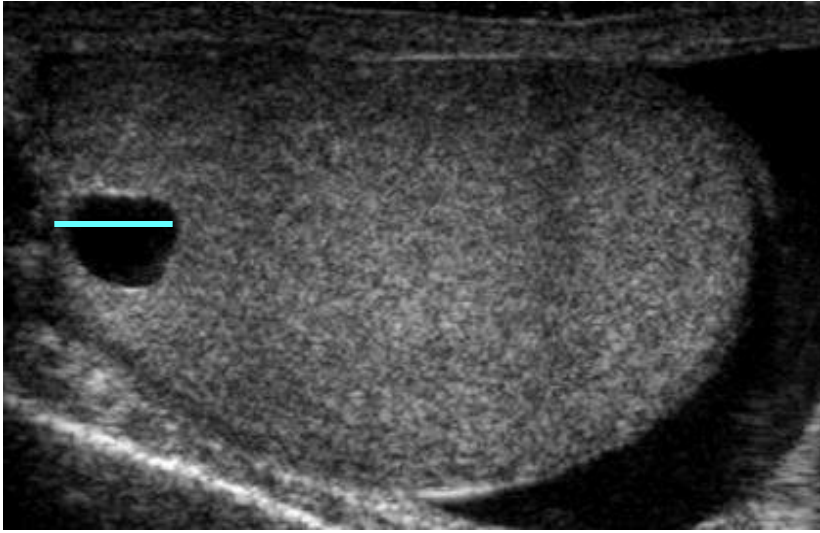
Diffuse micro-calcifications

C

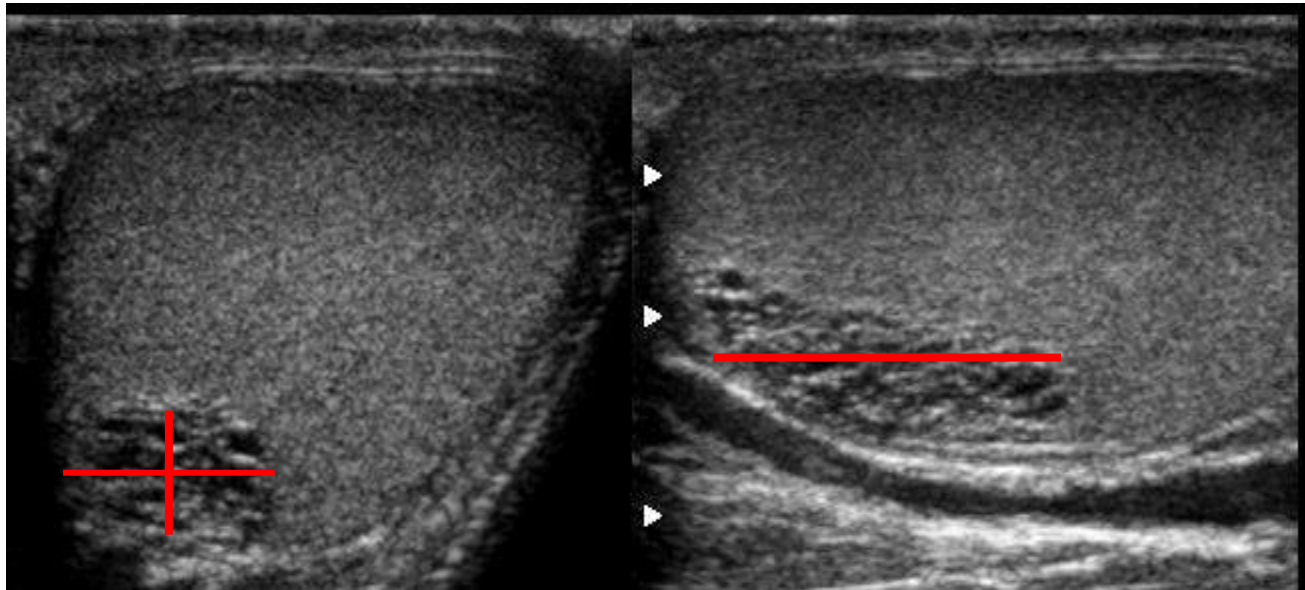


Arbitrary division of the testis
in three areas,
to localize the calcification

Fig. 4

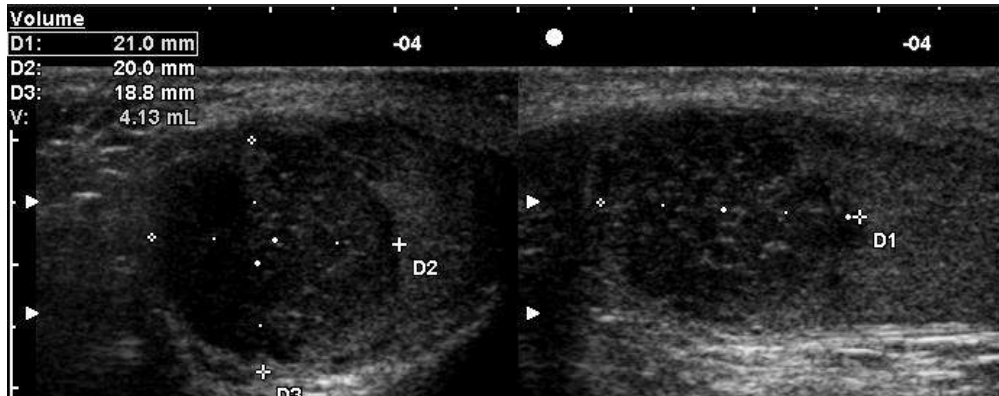


A. Testicular **cyst**,
upper lobe,
longitudinal diameter



B. Dilated
rete testis,
3 diameters

Nodules:



-3 diameters

-Homogeneity (*left*) or inhomogeneity/cysts (*right*)

-Echogenicity (normal, hypo or hyper)

-Calcifications

-Shape {
-regular
-irregular

-Vascularization {
-absent
-peripheral/«basket»
-intranodular

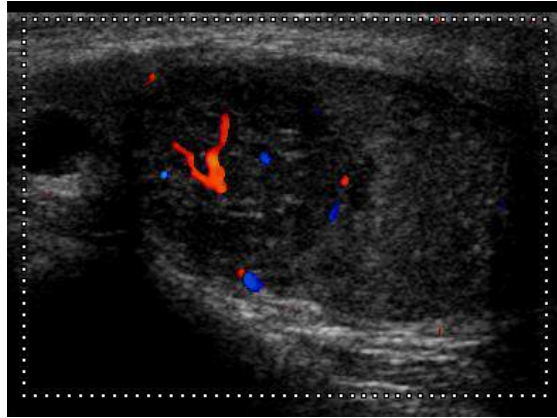
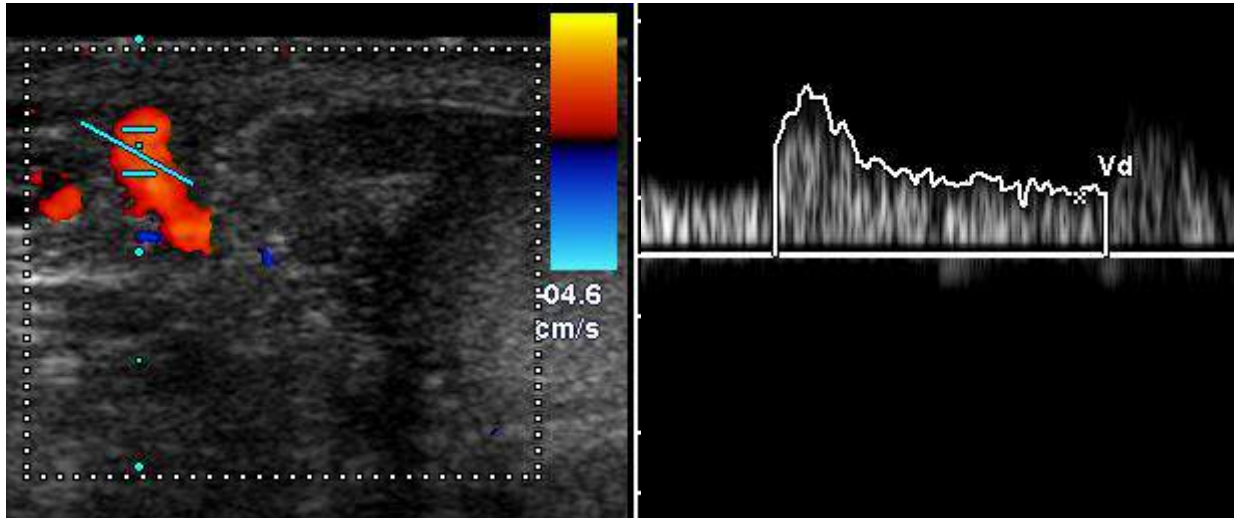
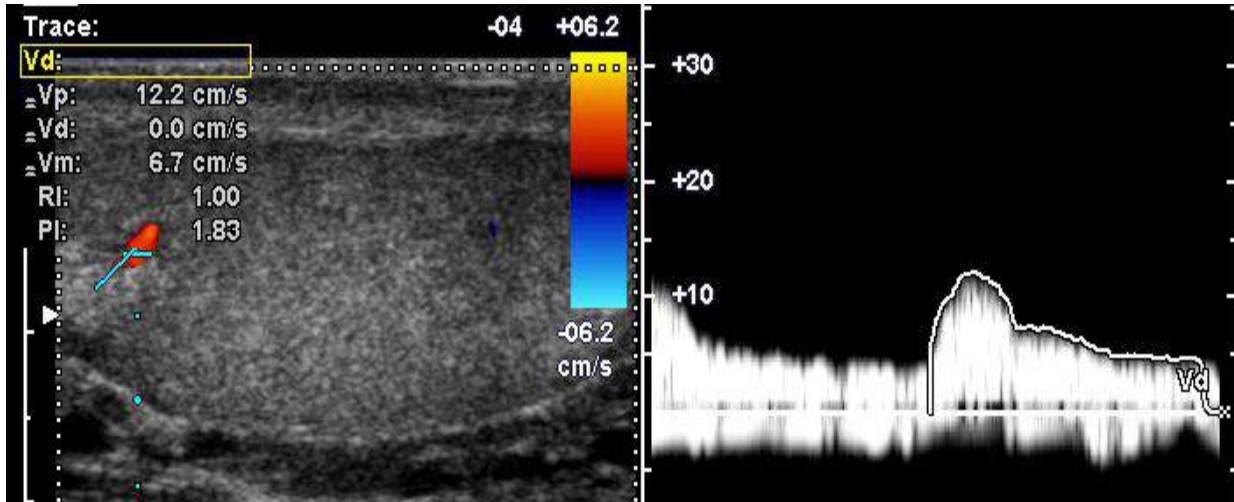


Fig. 6

Testis vascularization



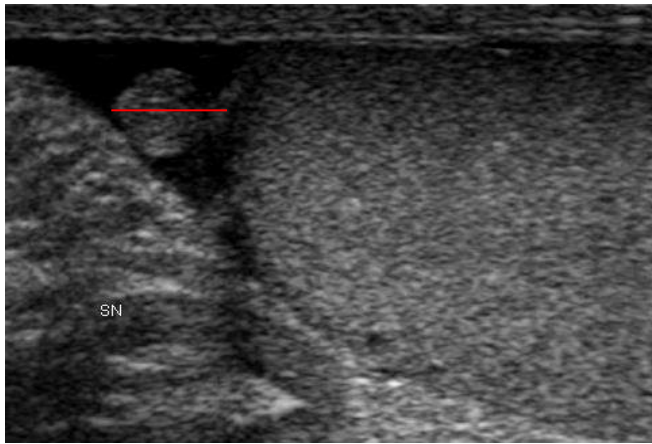
A. Testicular **artery**,
in the spermatic cord
-peak systolic velocity
-RI



A. Intratesticular **artery**,
-peak systolic velocity
-RI

At least 2 Doppler spots

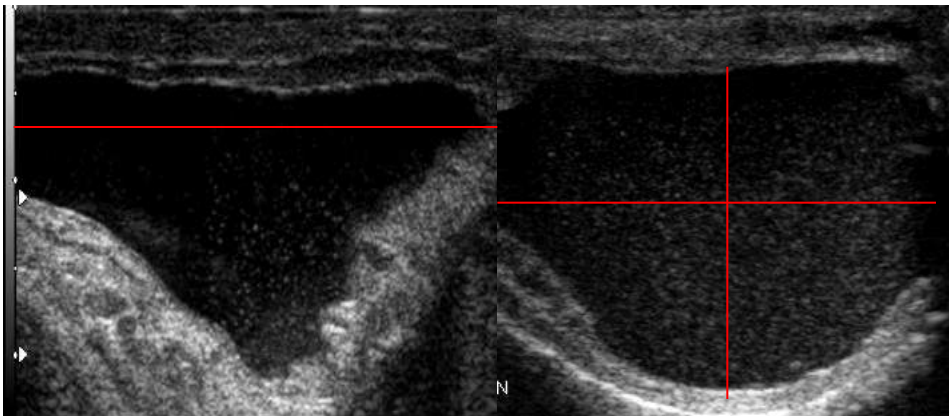
Fig. 7



A. Testicular **appendix**,
longitudinal diameter

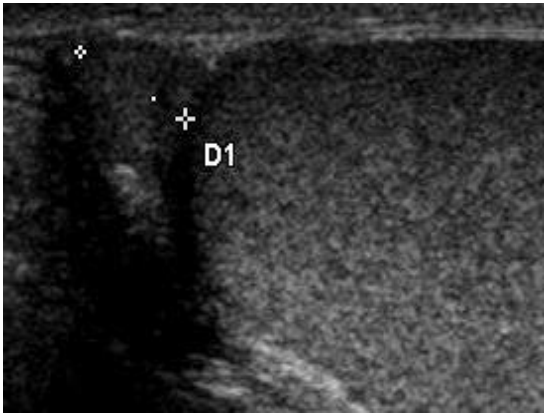


B. Extratesticular **calcification**,
longitudinal diameter

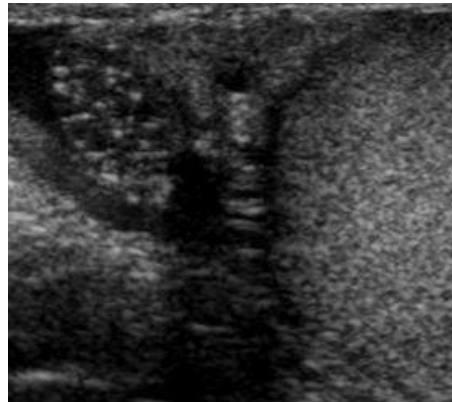
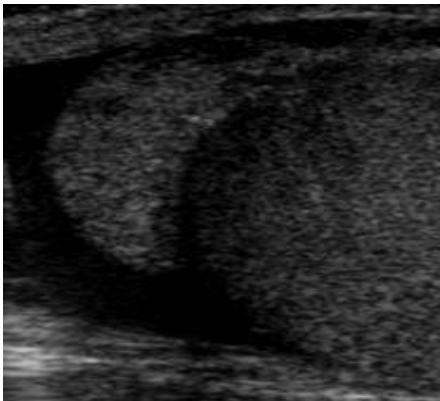


C. **Hydrocele**,
3 diameters

Epididymal head

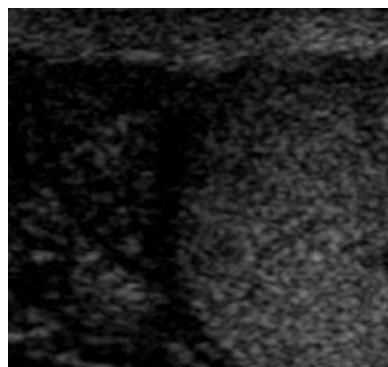
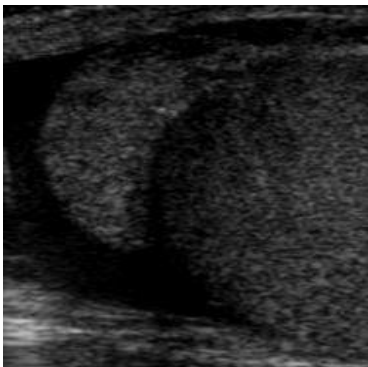


A. Longitudinal diameter



B. Homogeneous (*left*)

Inhomogeneous (*right*)



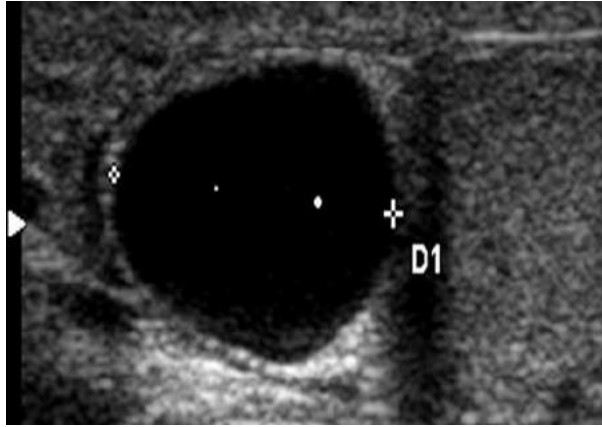
C. Normal echogenicity (*left*)

Hypoechoic (*middle*)

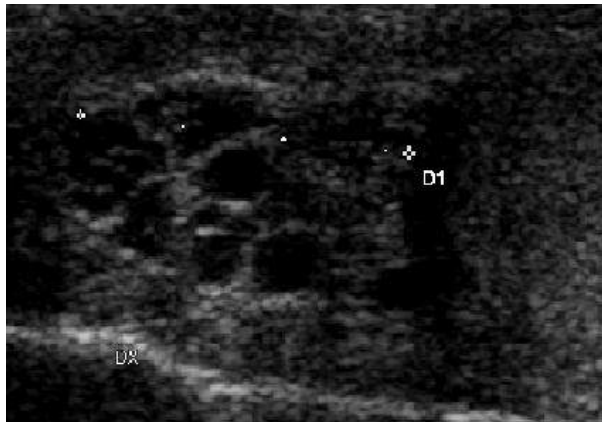
Hyperechoic (*right*)

Fig. 9

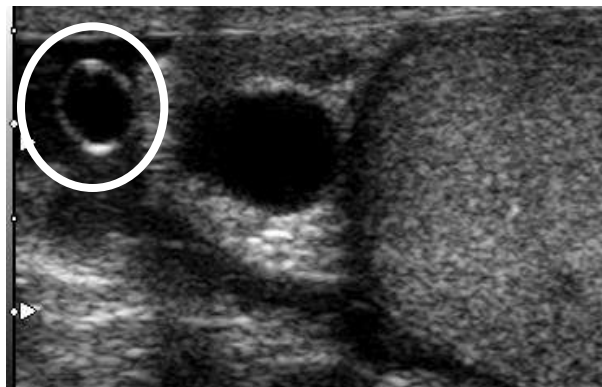
Epididymal head cysts and appendices



A. Epididymal head,
longitudinal diameter of a cyst

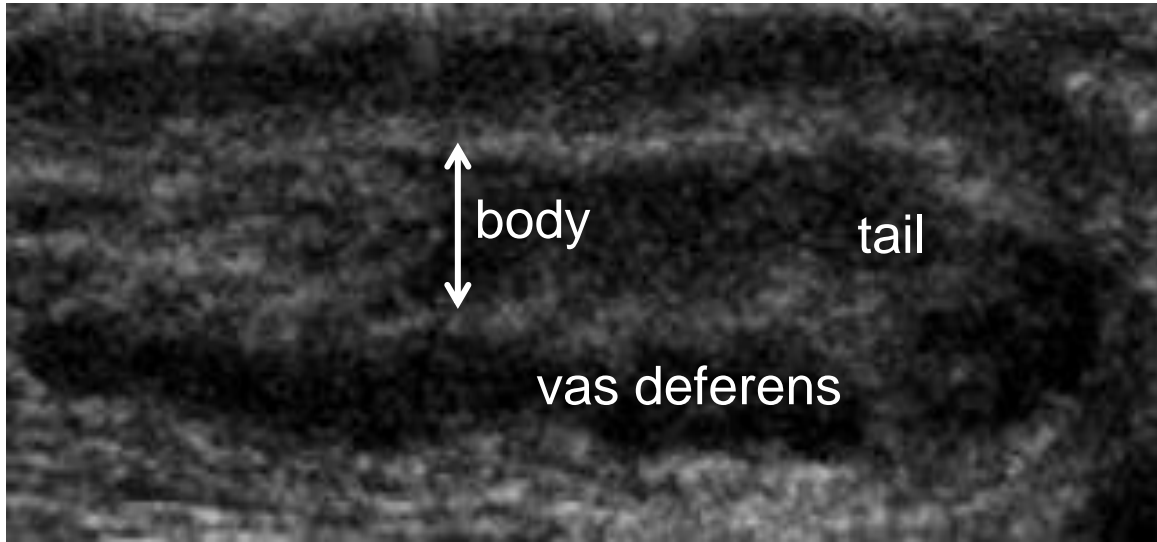


B. Epididymal head,
polycystic pattern

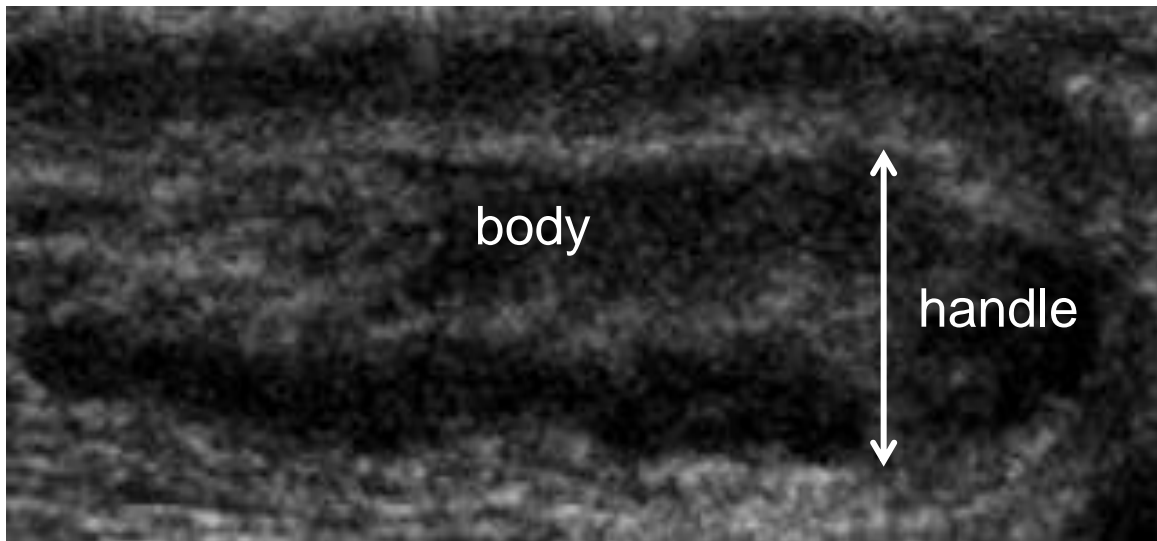


C. Cyst of the epididymal head
and cystic appendix (*white circle*)

Epididymal body, tail, vas deferens



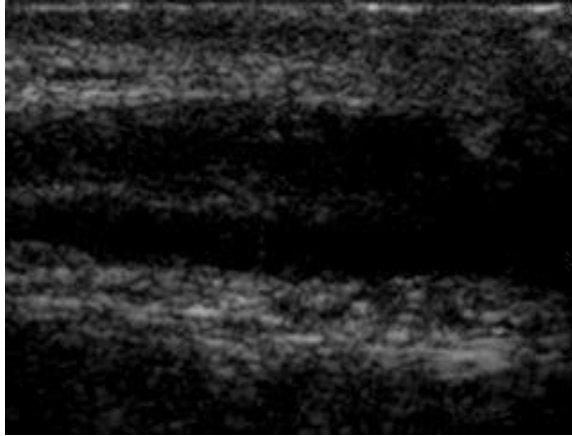
A. anterior-posterior diameter of the body



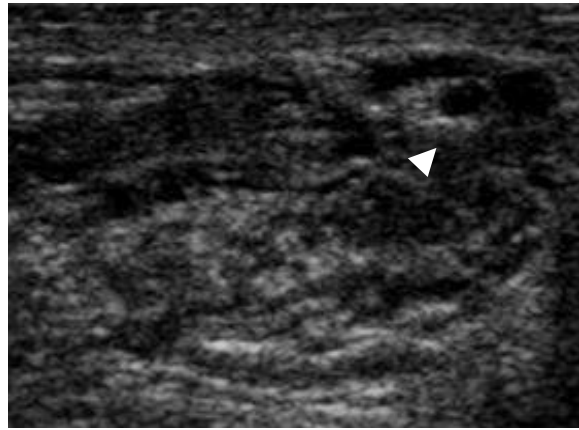
B. anterior-posterior diameter of the handle
(tail + proximal vas deferens)

Fig. 11

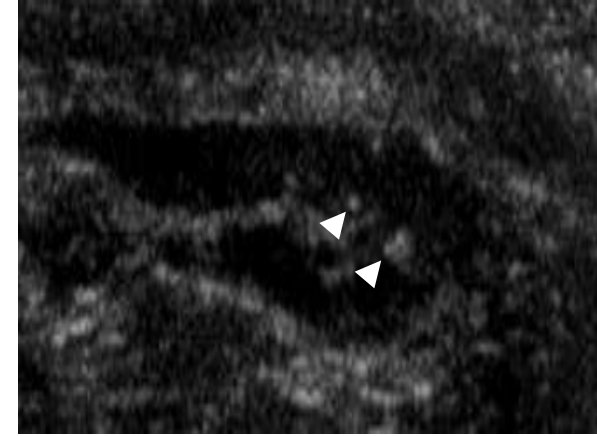
Epididymal tail homogeneity



Homogeneous

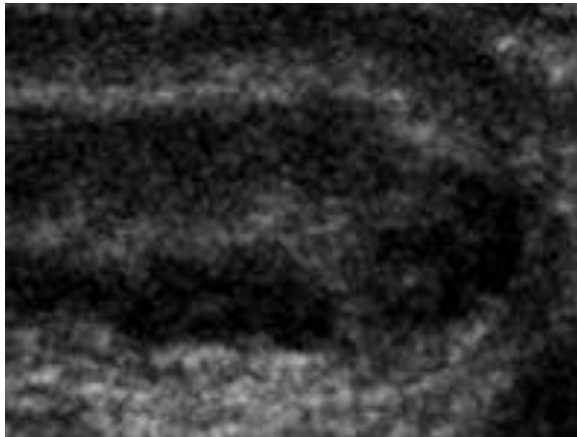


Inhomogeneous



Coarse calcifications

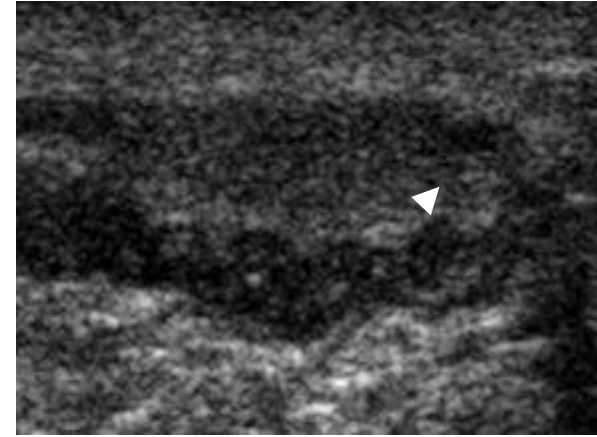
Epididymal tail echogenicity



Normal echogenicity



Hypoechoic



Hyperechoic

Epididymal cysts

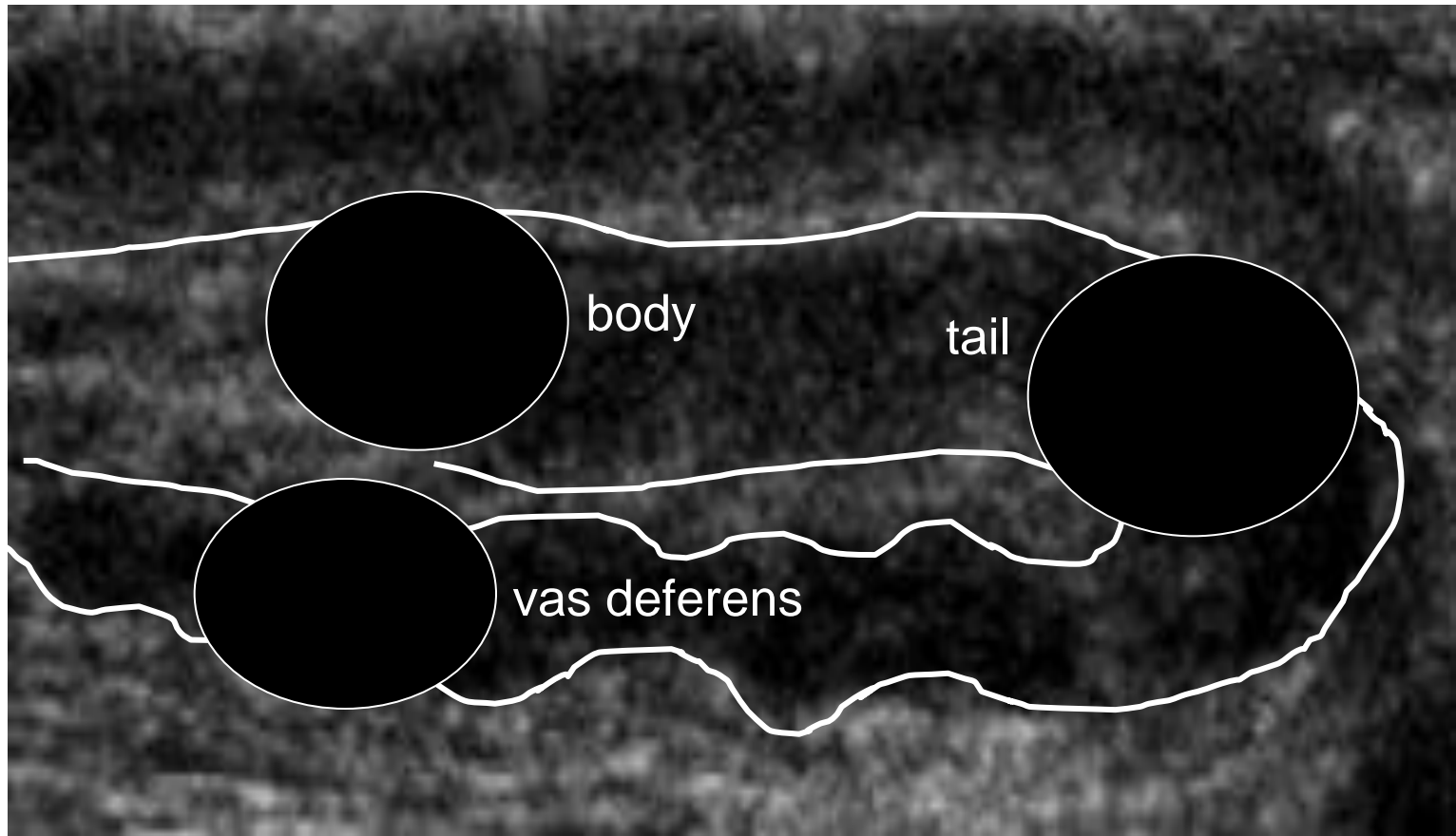
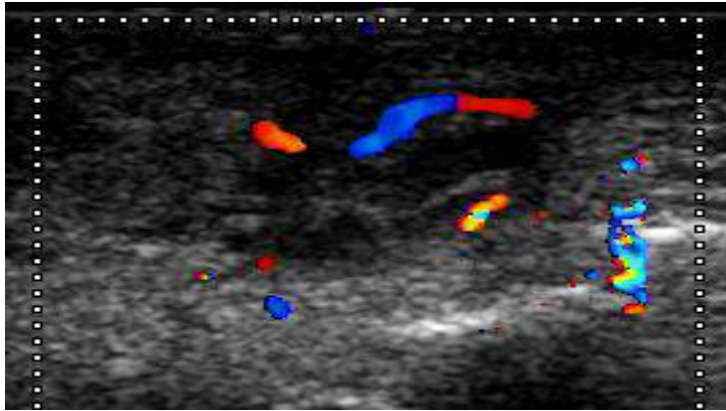
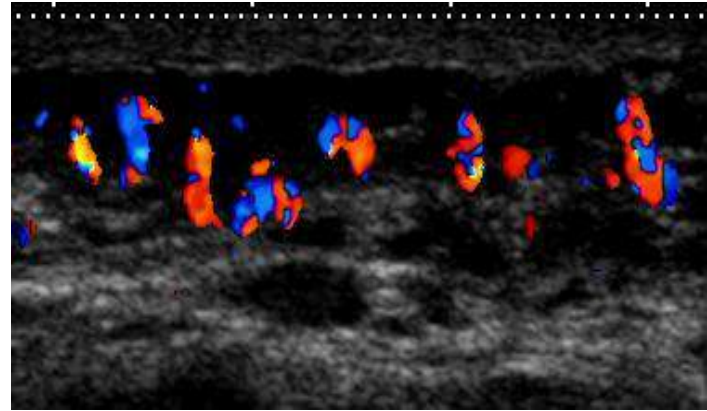


Fig. 13

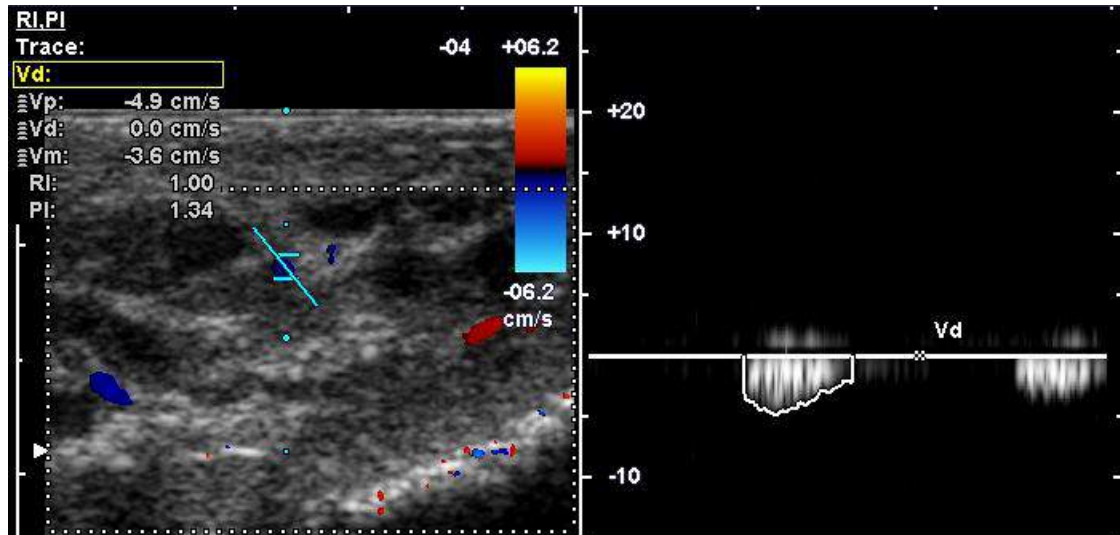
Epididymal vascularization



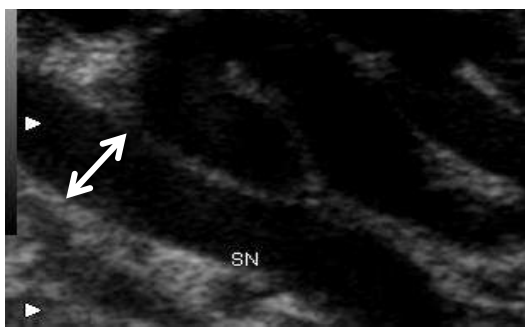
Normal vascularization



Hyperaemia (diffuse Doppler spots)



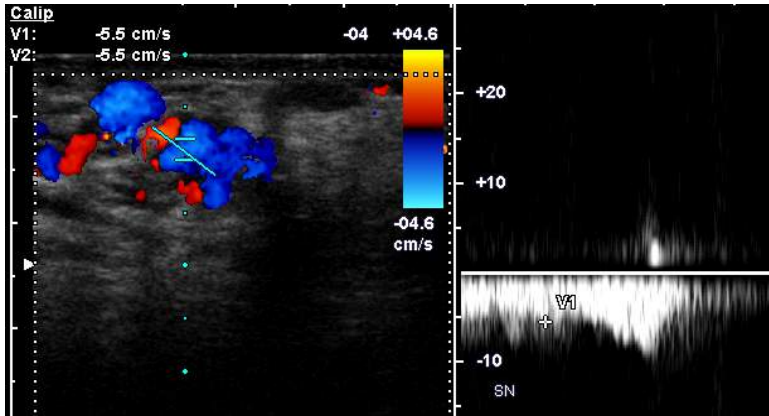
Epididymal **artery**,
-peak systolic velocity
-RI

A

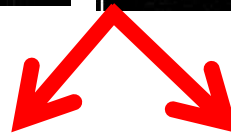
Internal spermatic vein: diameter (gray scale)

Pampiniform plexus

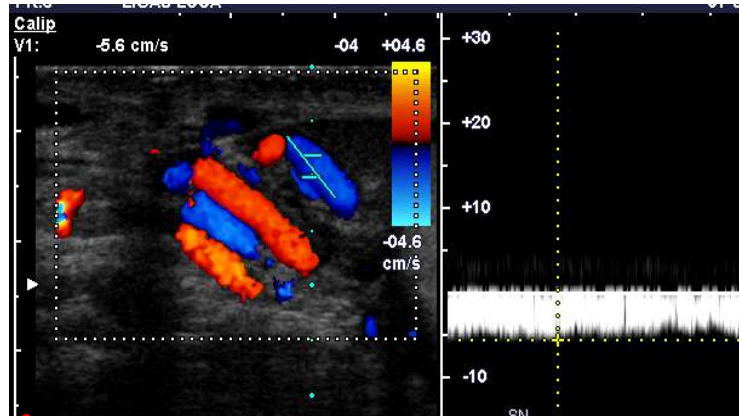
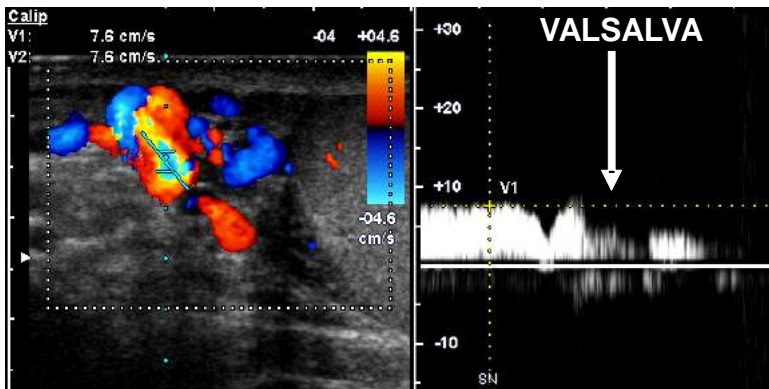
Retrograde venous flow (colour-Doppler)

B

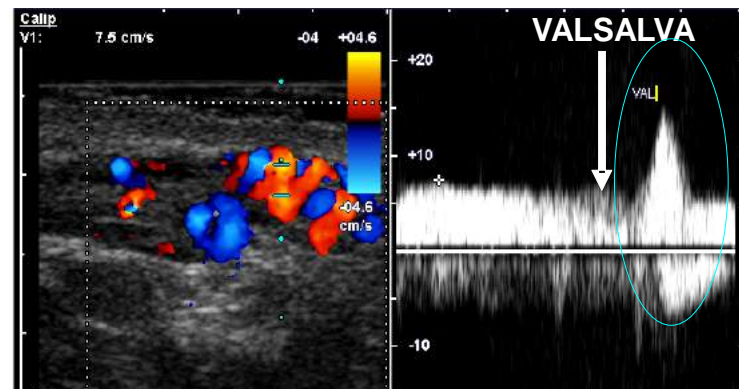
Intermittent



Continuous

**C**

Reducing/stopping with Valsalva



Increasing with Valsalva

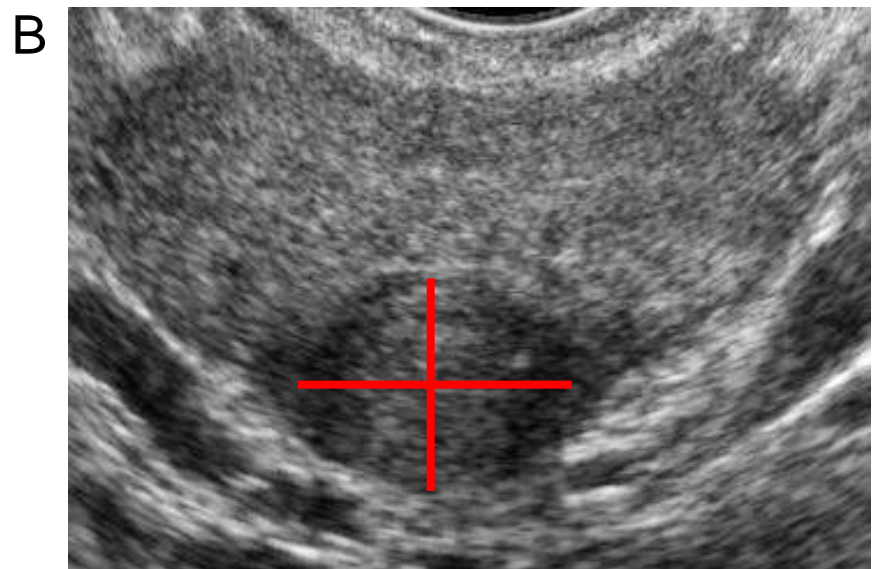
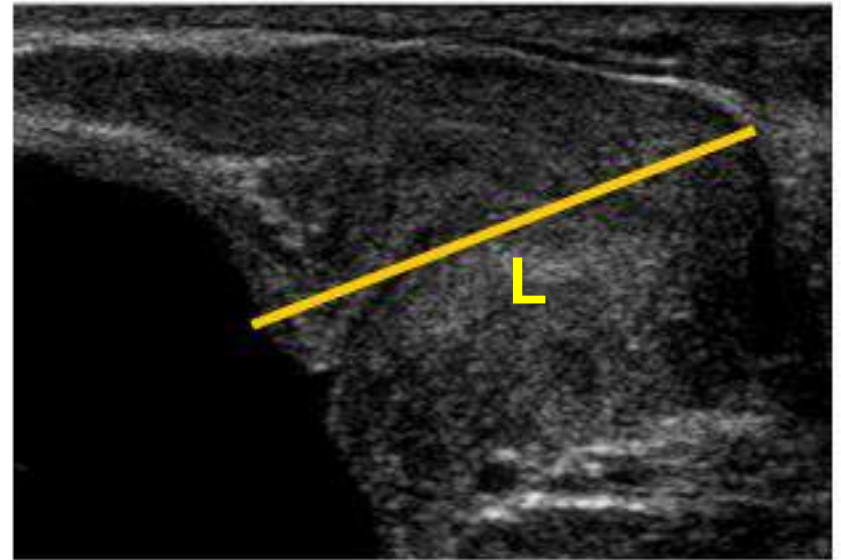
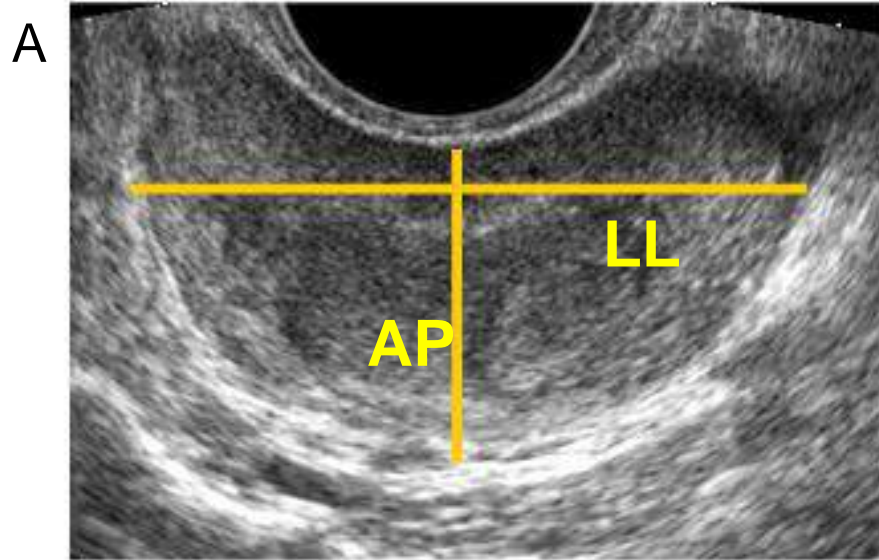
Fig. 15

Prostate diameters

Lateral-lateral (LL)

anterior-posterior (AP)

longitudinal (L)

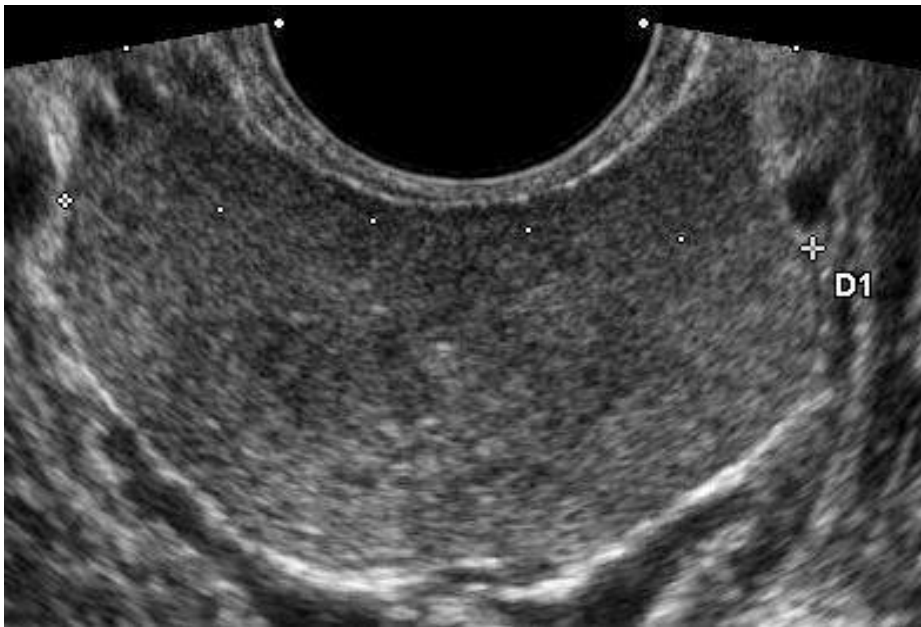


Transitional zone

Fig. 16

Prostate simmetry

Simmetry



Asimmetry
(left lobe bigger)

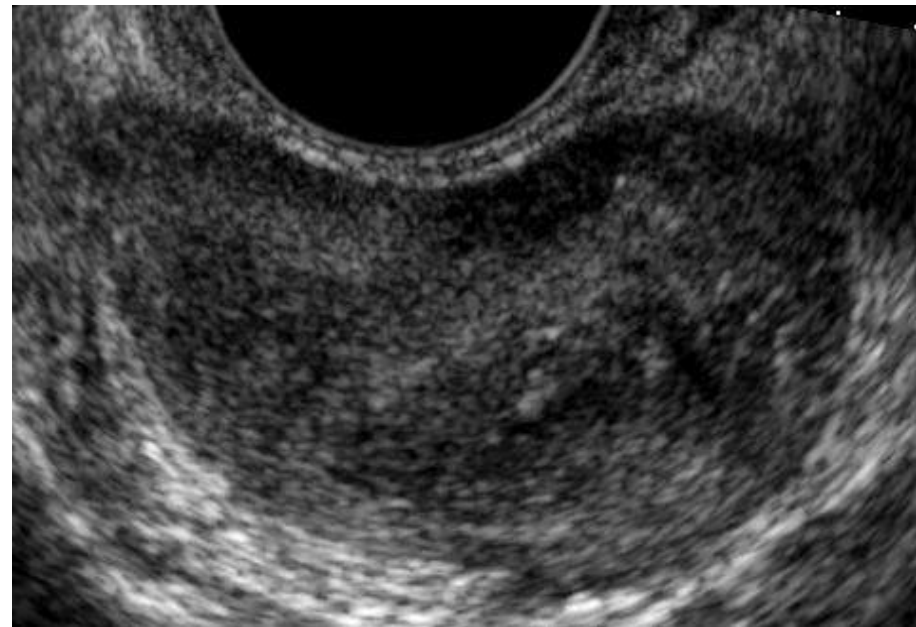
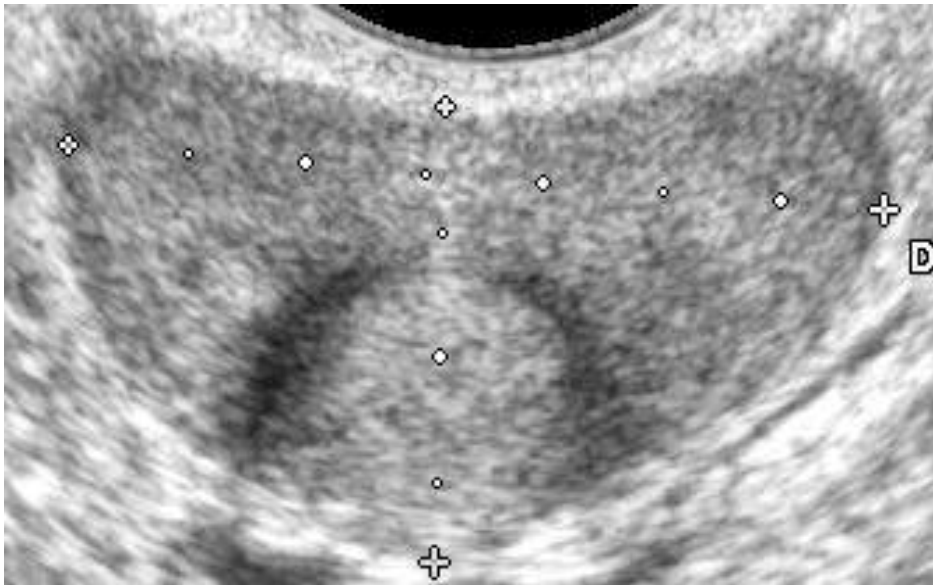


Fig. 17

Prostate homogeneity

Transitional zone: homogeneous
Peripheral zone: homogeneous



Transitional zone: inhomogeneous
Peripheral zone: inhomogeneous

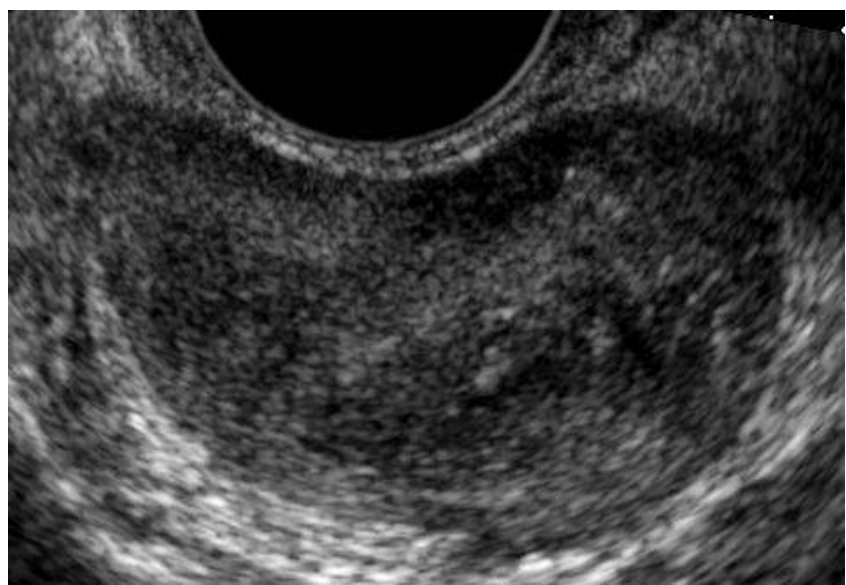
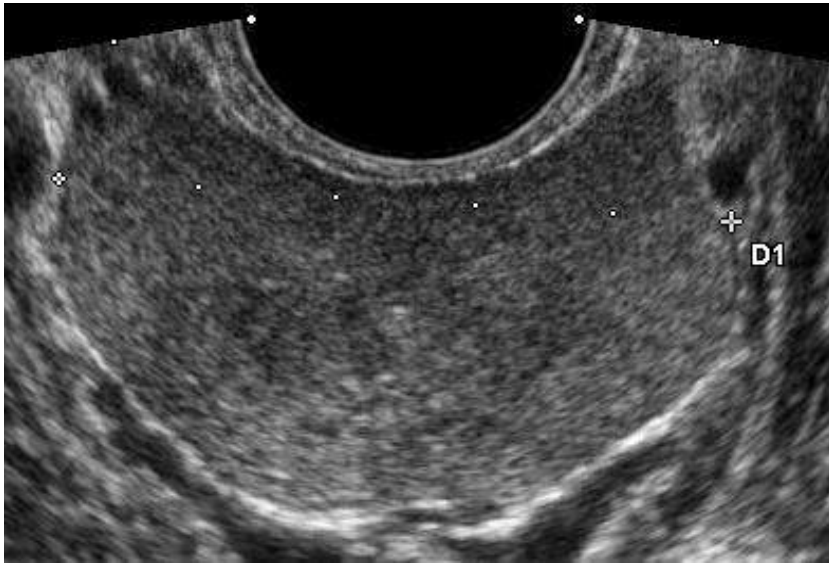


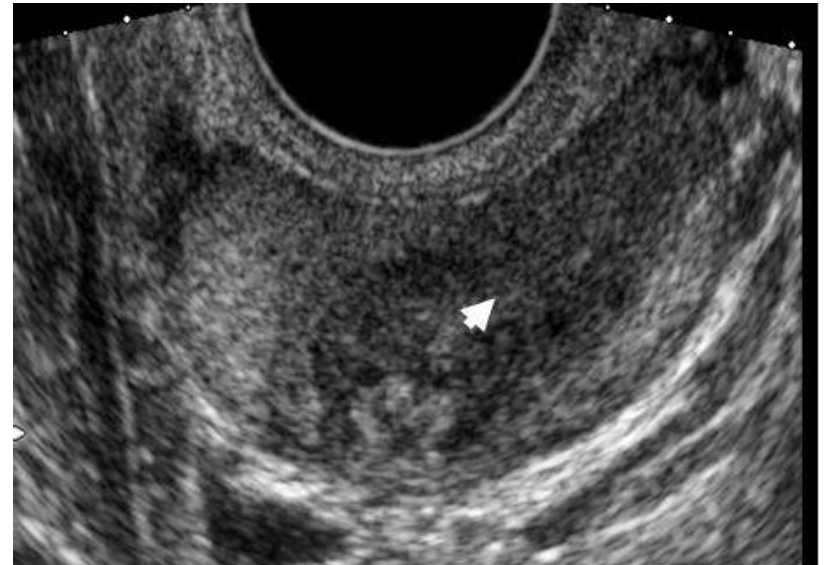
Fig. 18

Prostate echogenicity

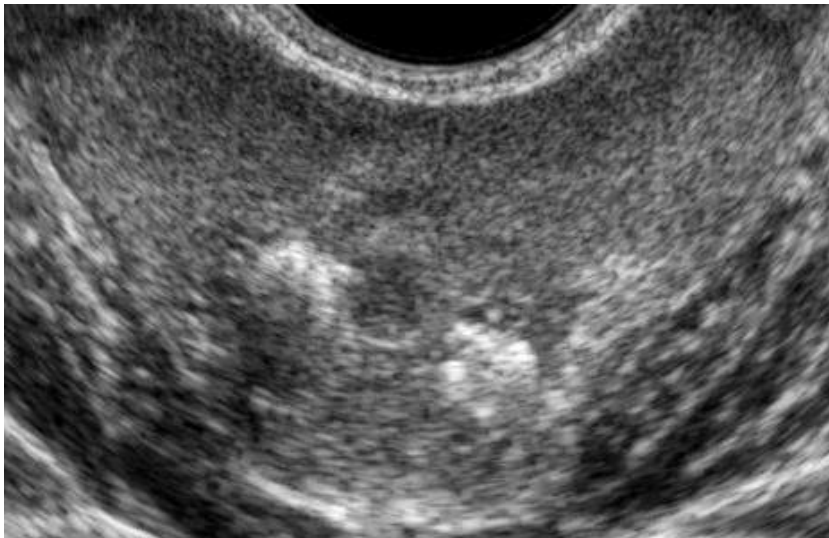
0. Normal echogenicity



1. Mainly hypoechoic



2. Hyperechoic/calcifications

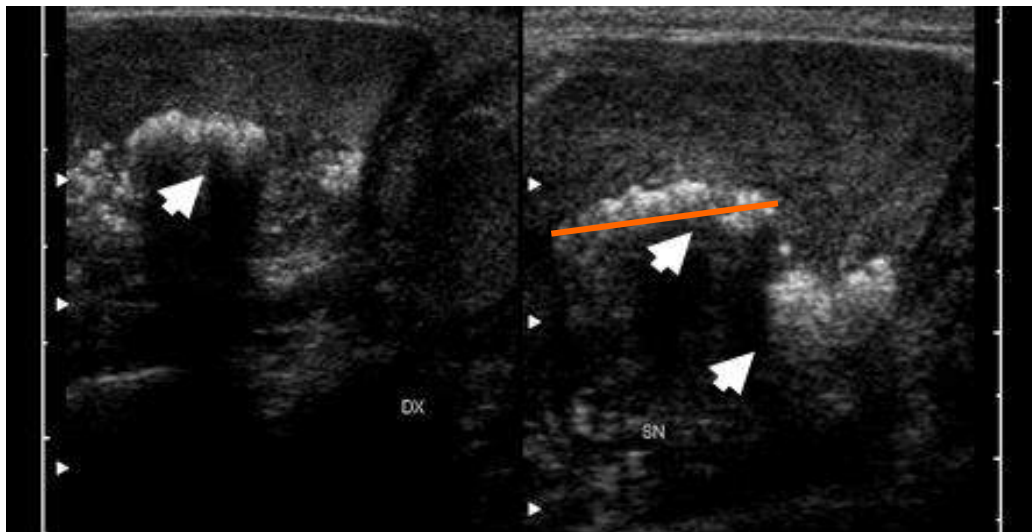
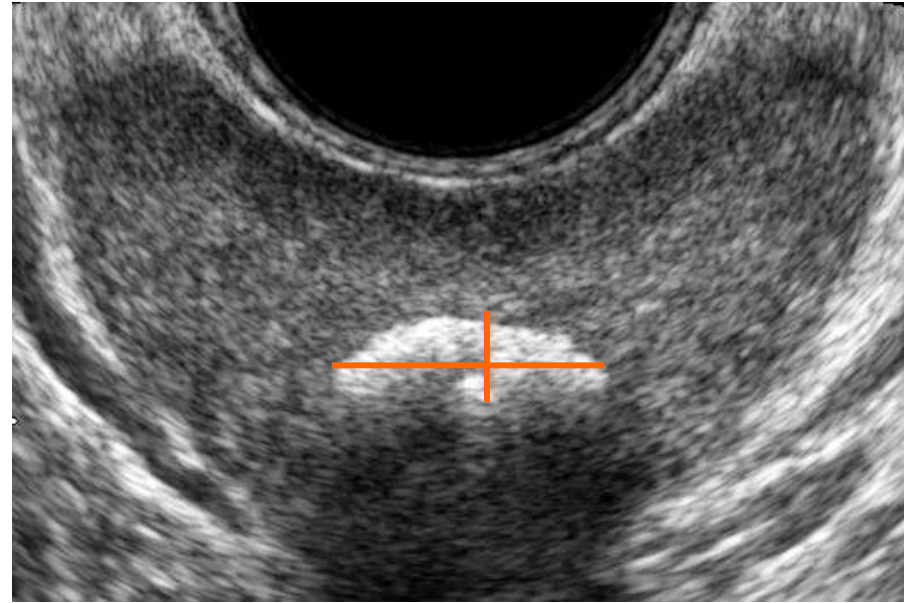
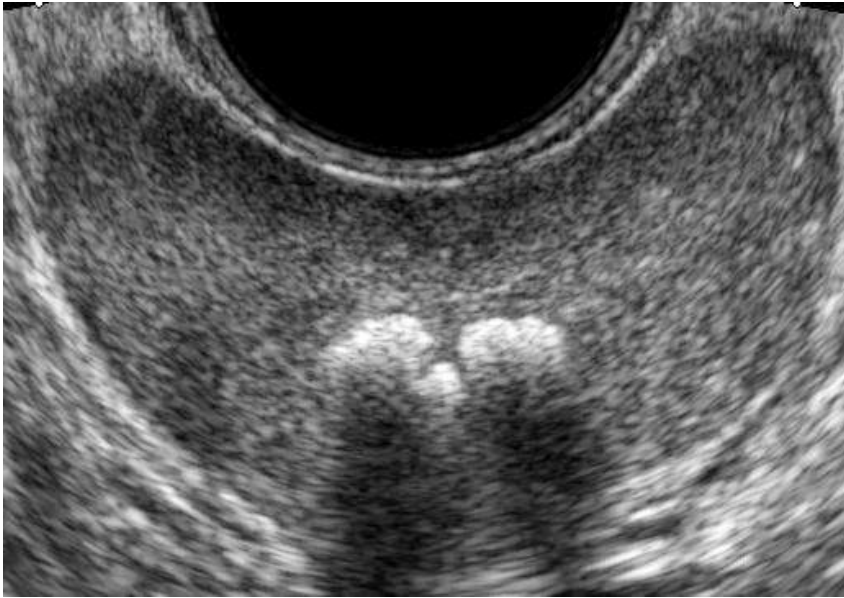


3. Hypo- and hyper-echoic areas



Fig. 19

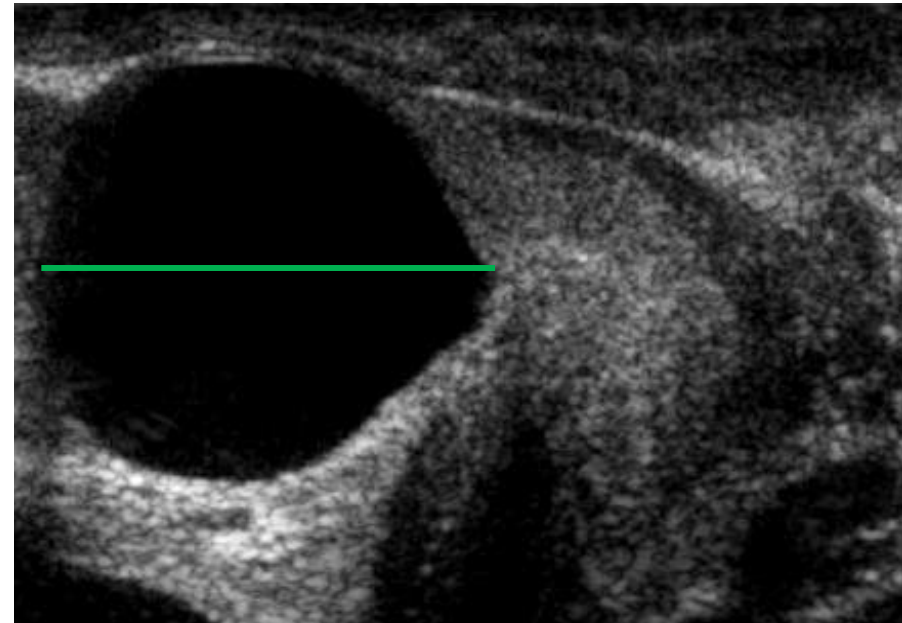
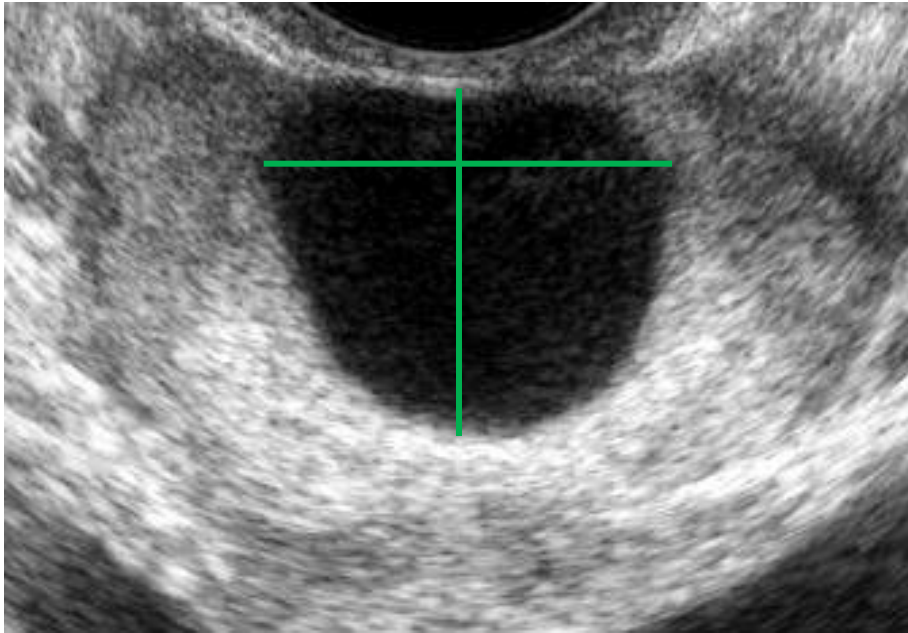
Prostate calcifications



Macro-calcification: > 3 mm
Peri-transitional
3 diameters

Fig. 20

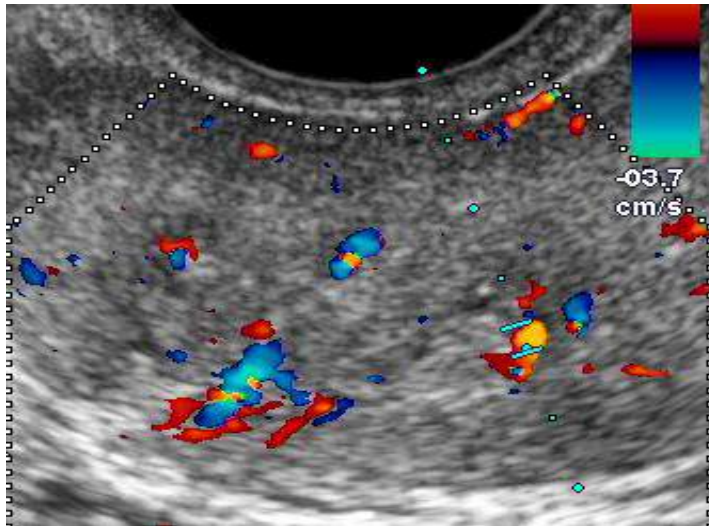
Prostate utricular / mullerian cyst



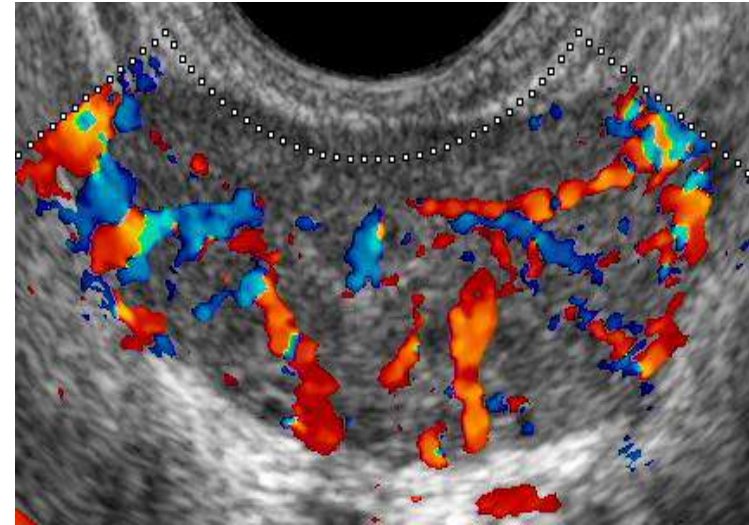
3 diameters

Prostate vascularization

Normal



Diffuse hyperaemia: ≥ 15 Doppler spots



Arterial peak systolic velocity and RI

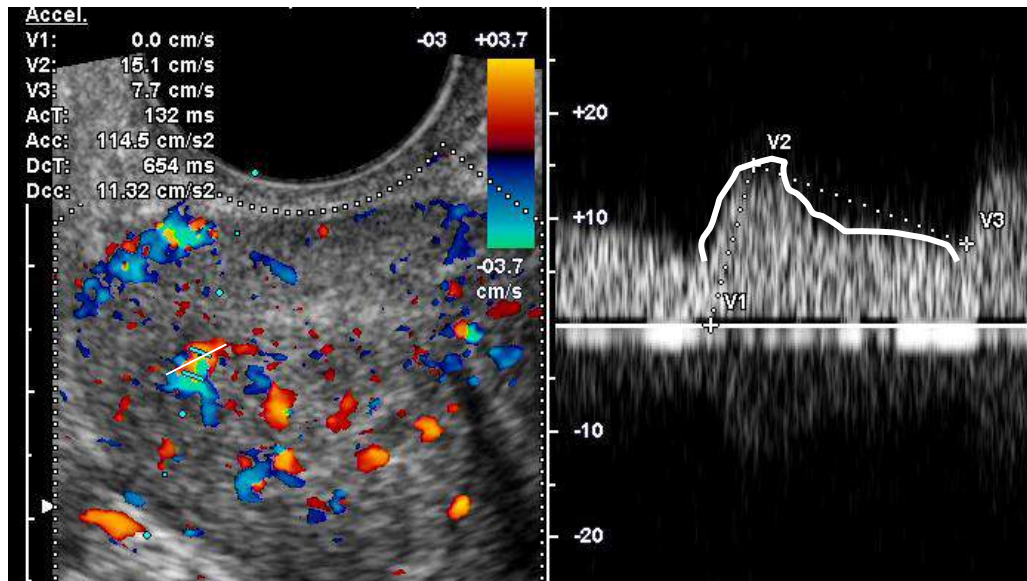
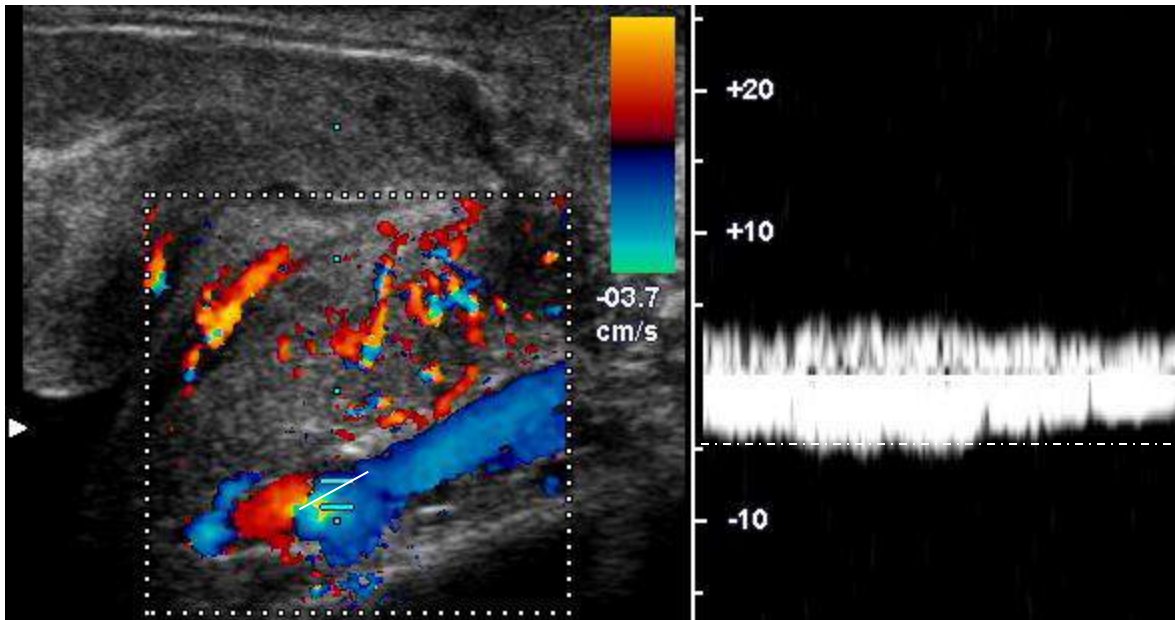


Fig. 22

Prostate venous plexus



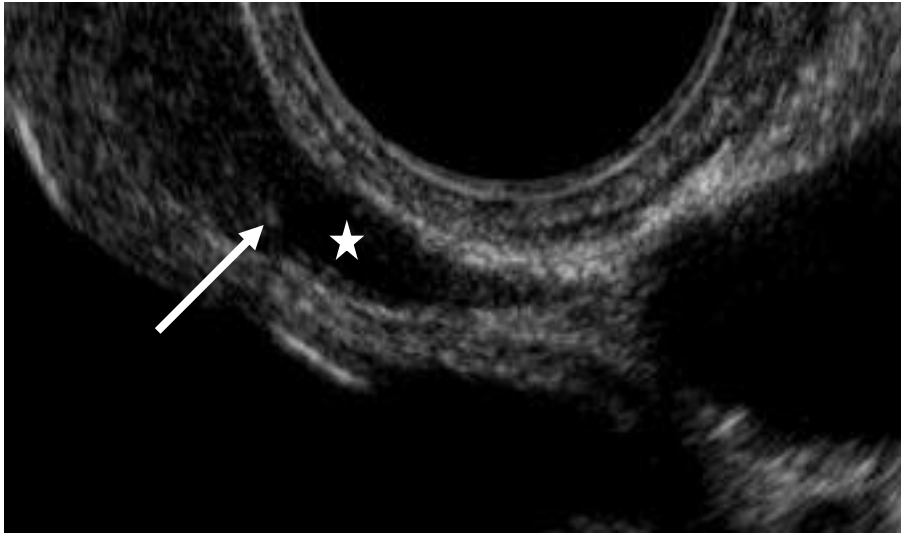
Maximum anterior-posterior diameter



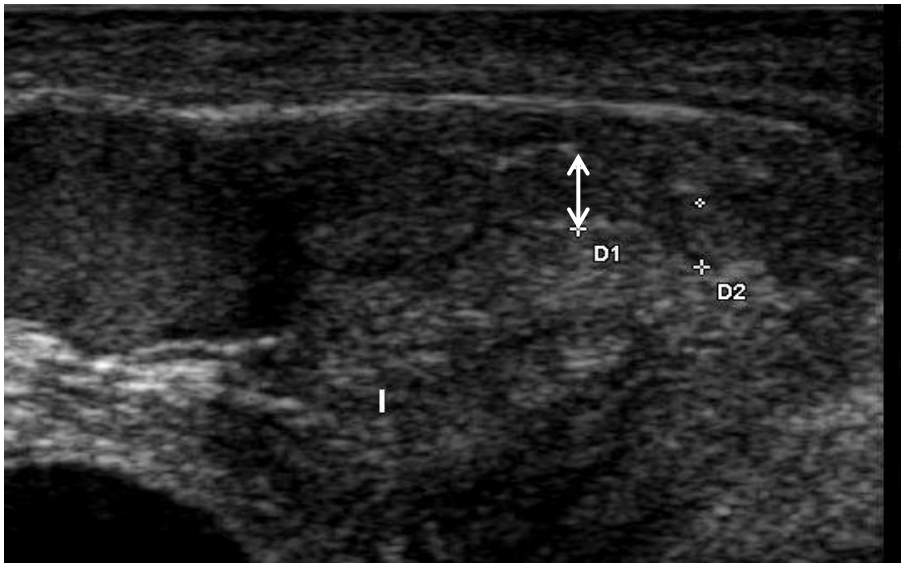
Basal venous blood flow velocity

Fig. 23

Ejaculatory ducts

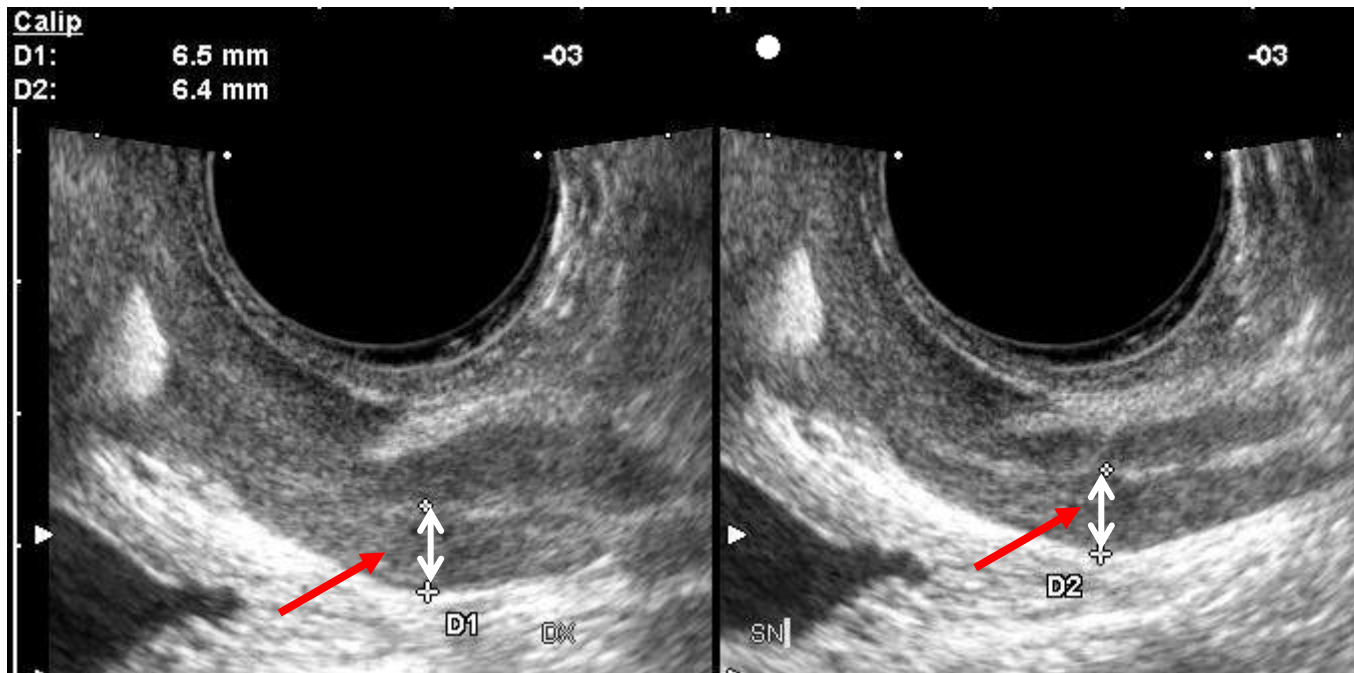


Ejaculatory duct:
-calcification (*arrow*)
-cyst (*star*)

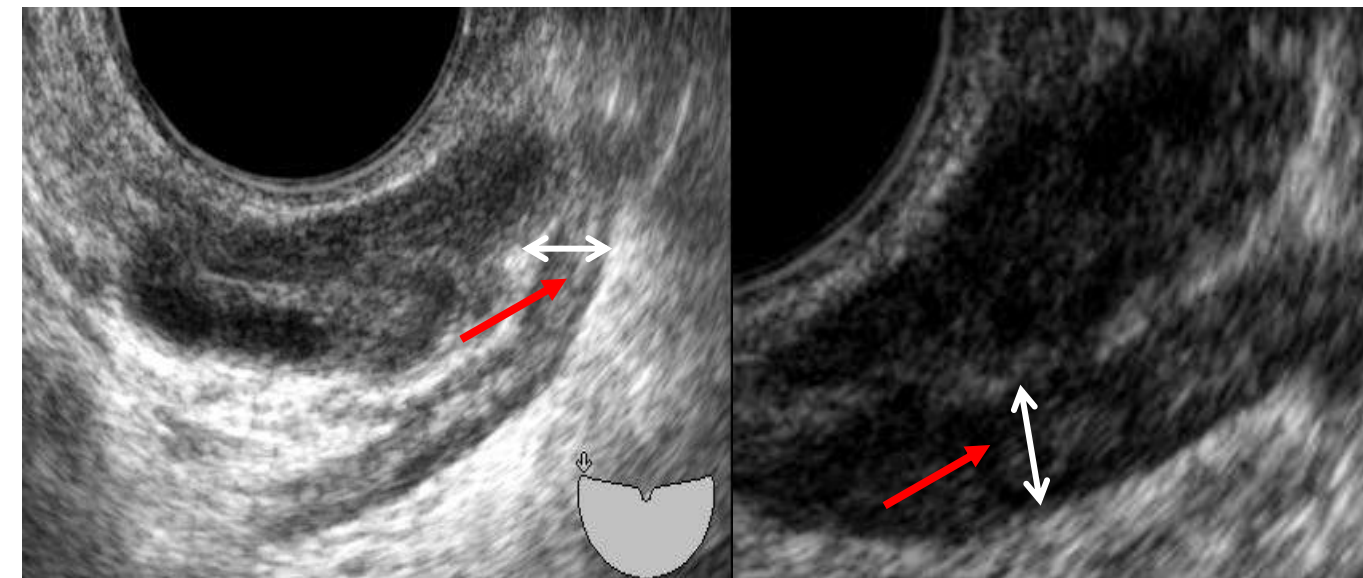


Ejaculatory duct dilatation:
anterior-posterior diameter

Deferential ampullas



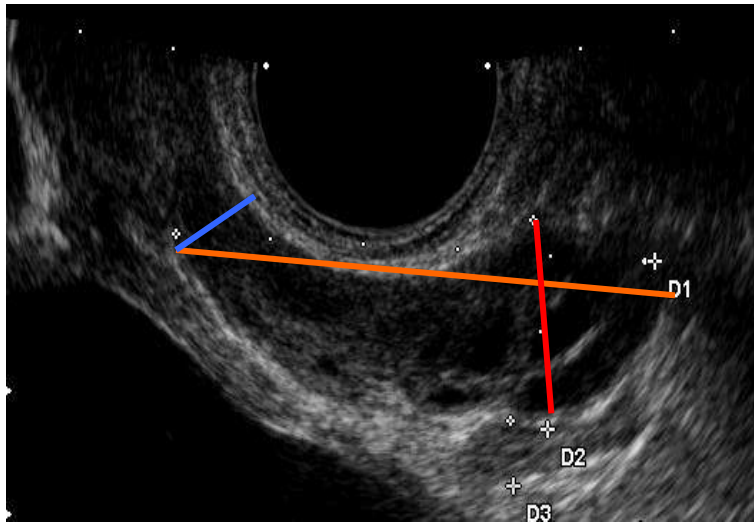
A. Right and left deferential ampullas: anterior-posterior diameter



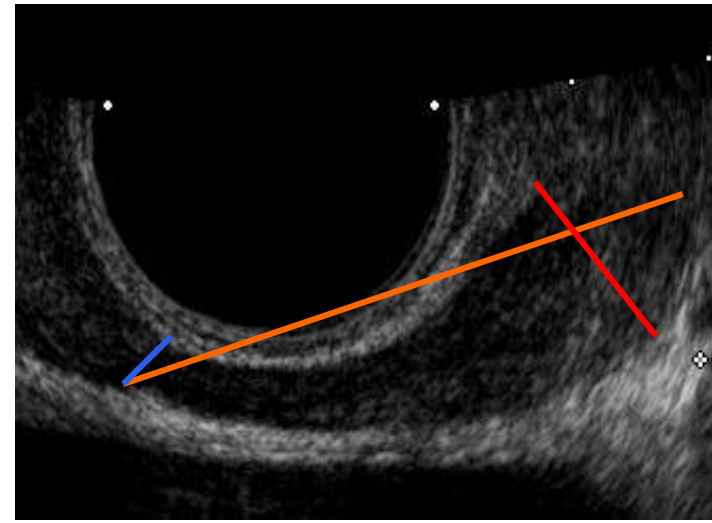
B. Distal vas deferens: anterior-posterior diameter

Seminal vesicles (SV) diameters and volume

A



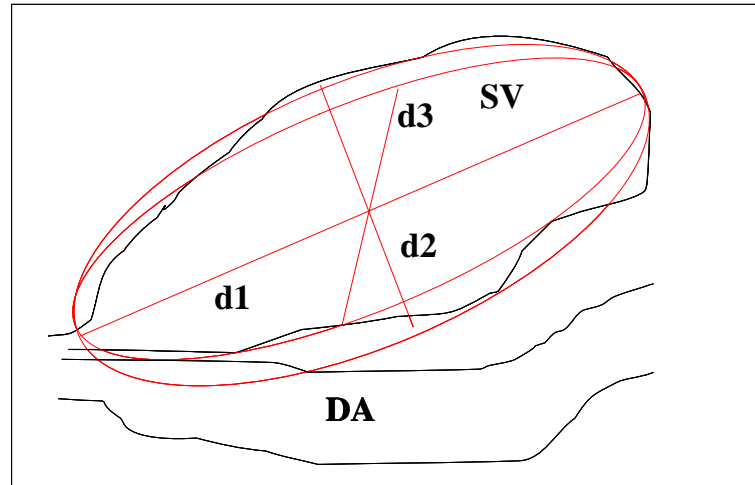
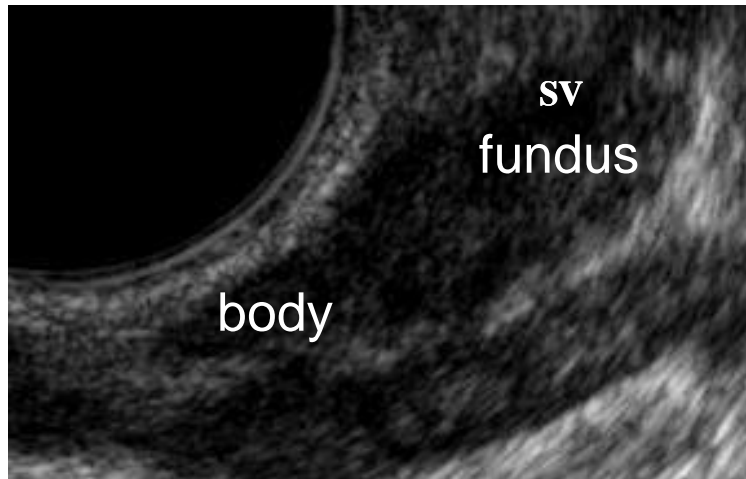
Before ejaculation



After ejaculation

[Orange: longitudinal diameter; Red: max anterior-posterior diameter (fundus); Blue: body anterior-posterior diameter]

B

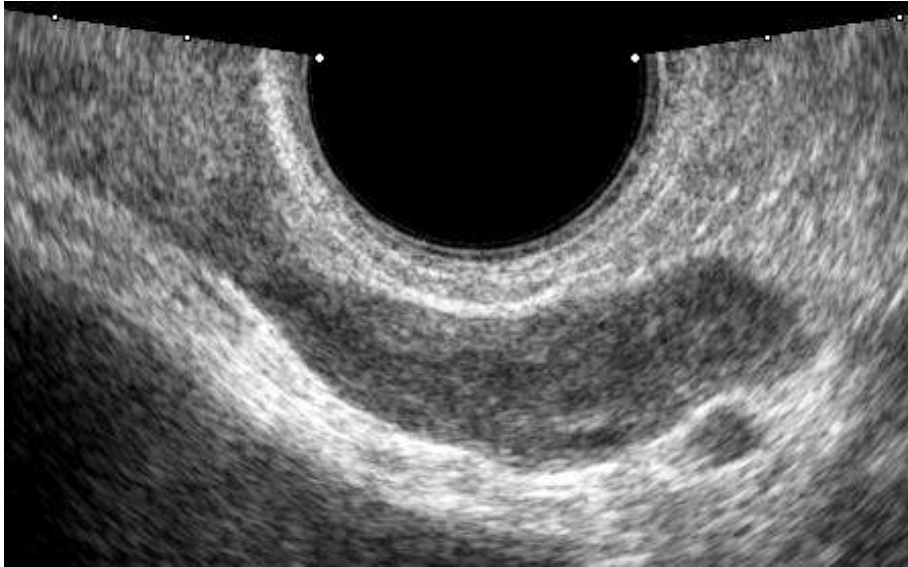


Ellipsoid ($d1 \times d2 \times d3 \times \frac{4}{3} \times \pi$) ($d1 > d2 = d3$)

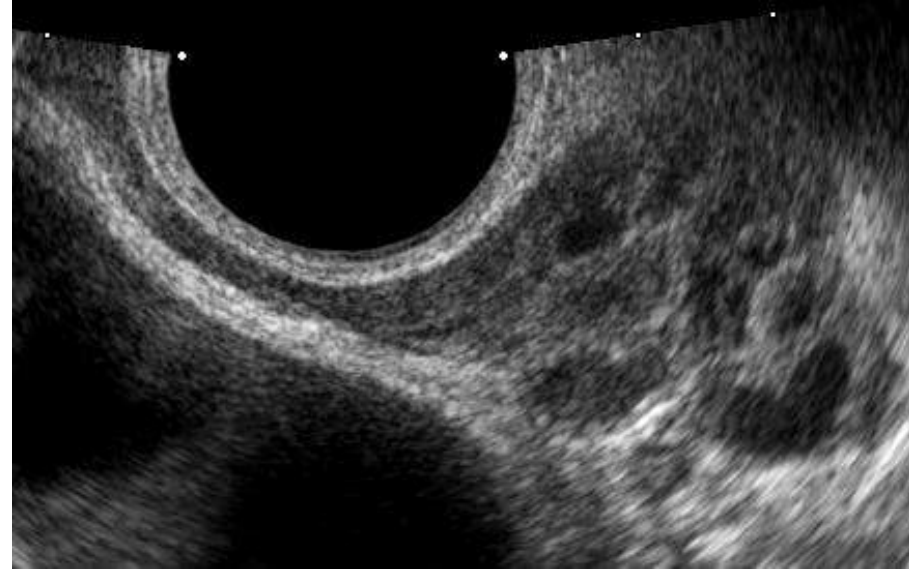
Fig. 26

Seminal vesicles homogeneity

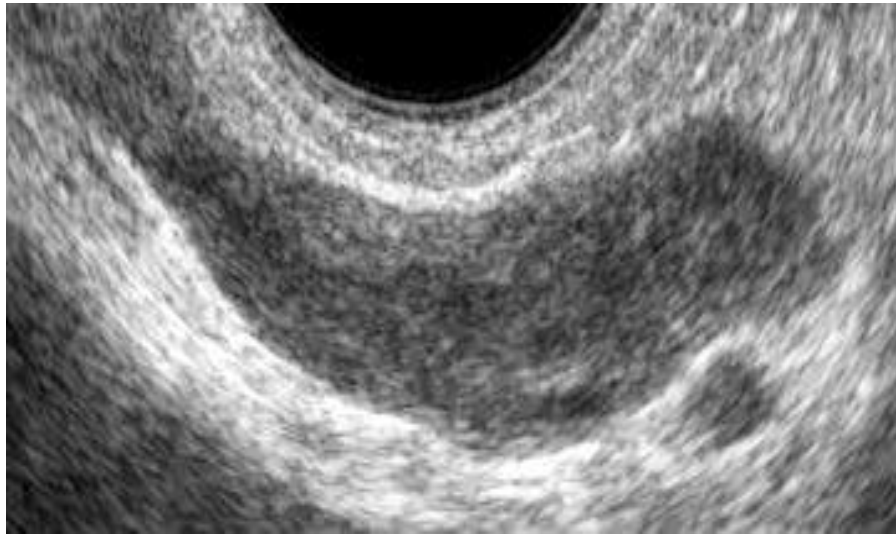
Homogeneous



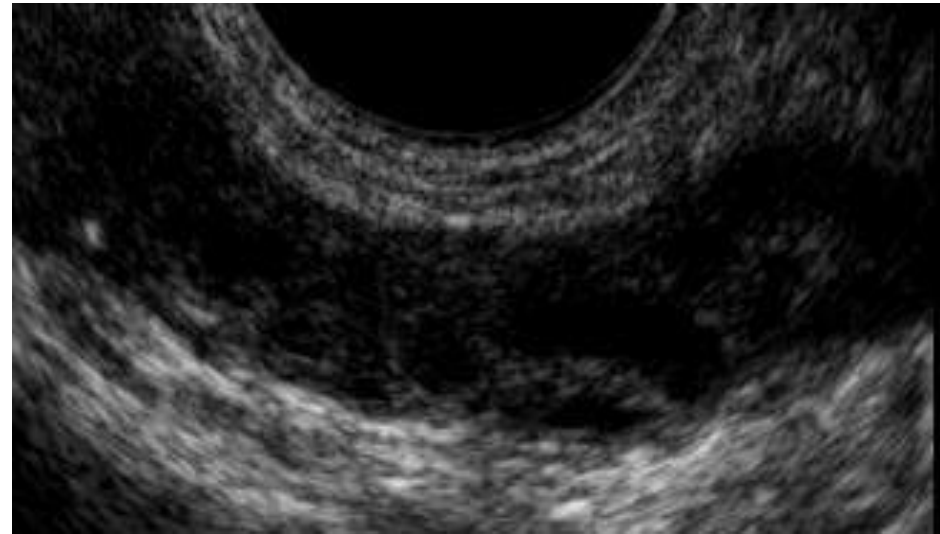
Inhomogeneous



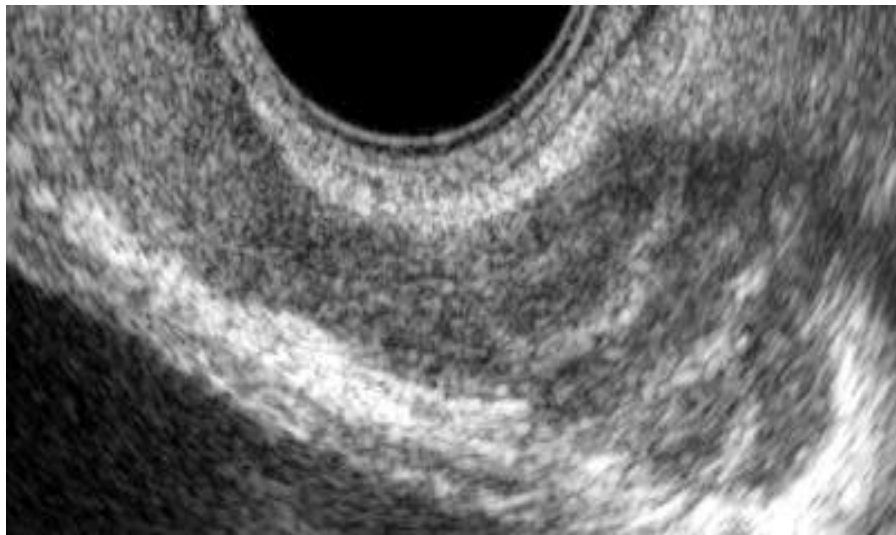
Seminal vesicles echogenicity



Normal echogenicity



Mainly hypoechoic/hypoechoic areas



Mainly hyperechoic/hyperechoic areas



Hypo- and hyper-echoic areas **Fig. 28**

Seminal vesicles vascularization

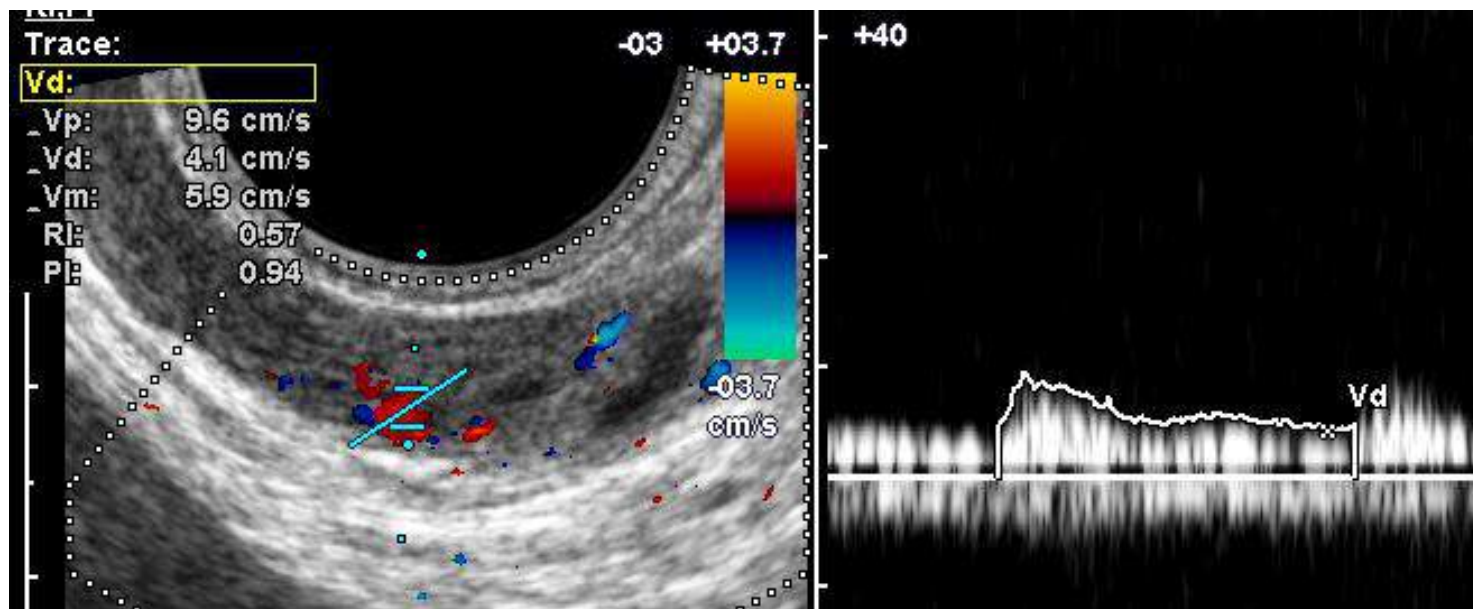
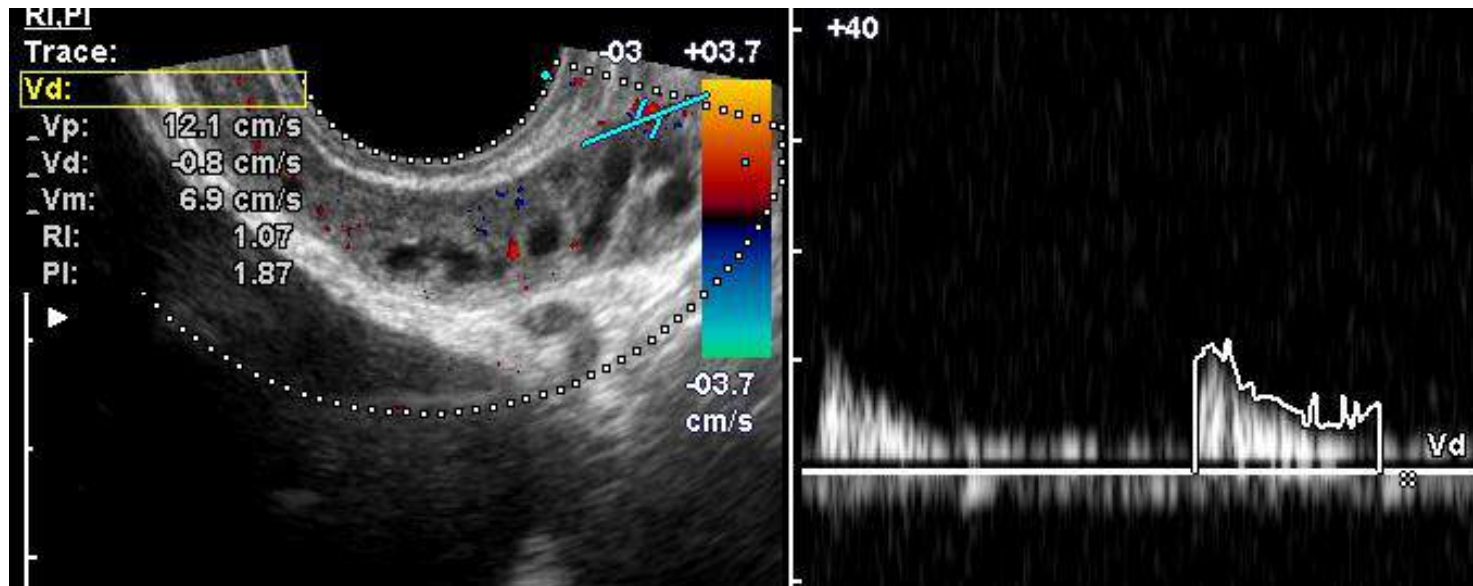
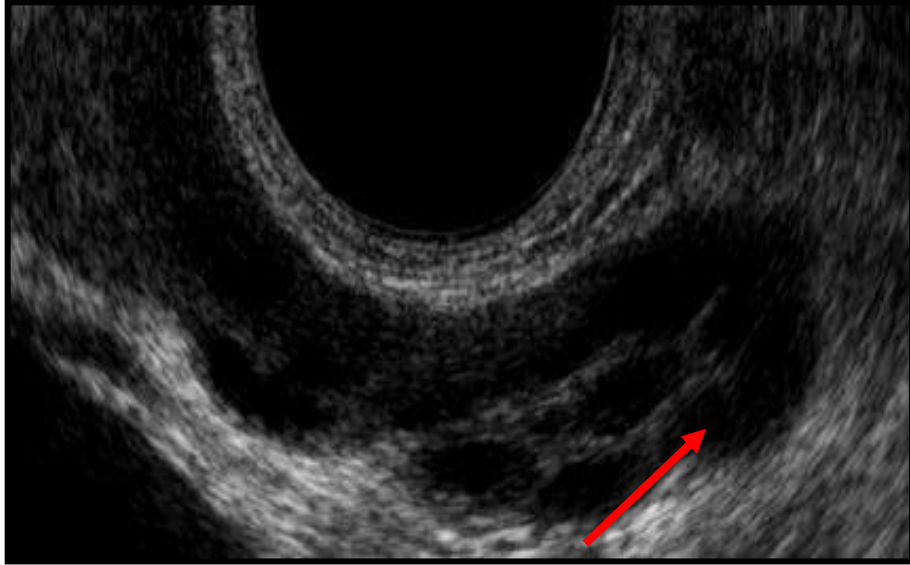
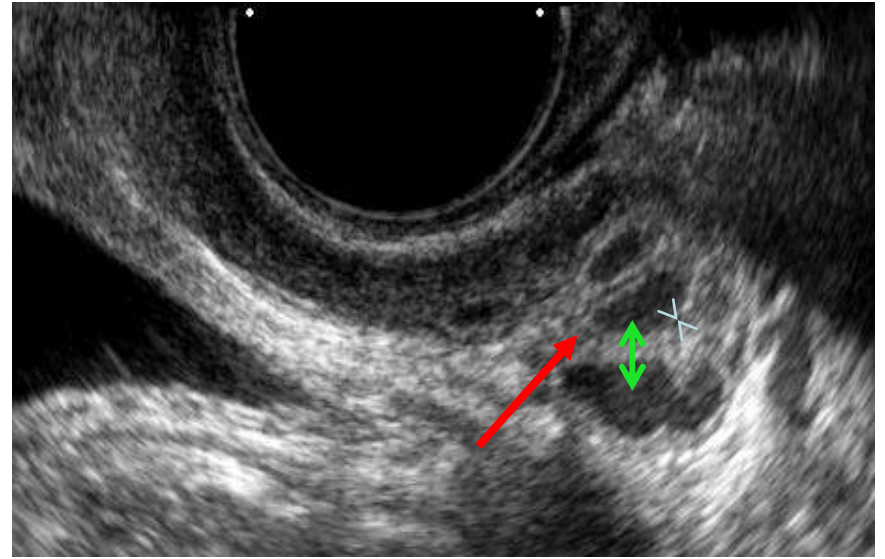


Fig. 29

Seminal vesicles ultrasound abnormalities



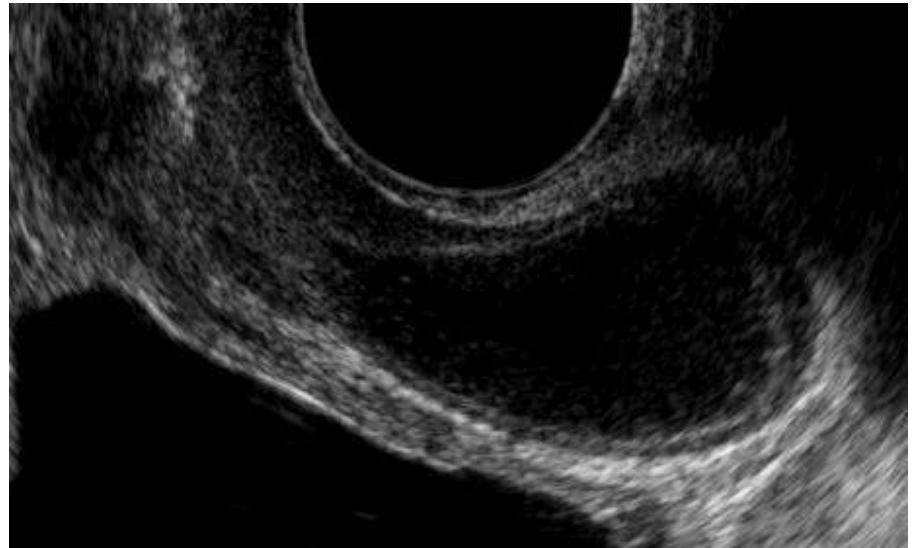
Areas of endocapsulation



Septa



Calcifications



Giant cyst

Fig. 30