

Bladder Cancer:

USS can demonstrate intravesical lesions.

Below is an example of a solid, suspicious mass within the bladder wall.

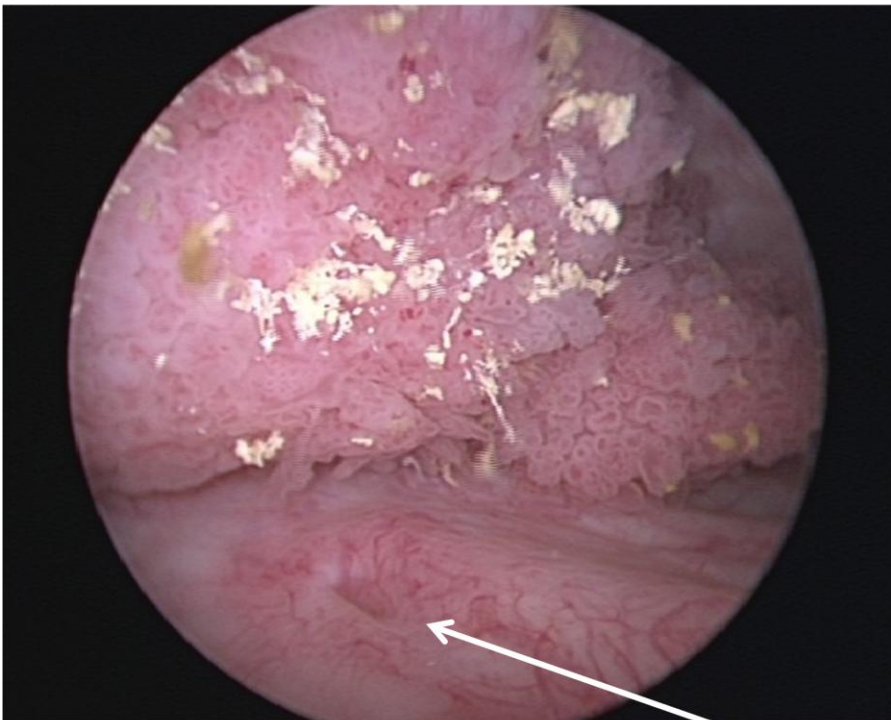
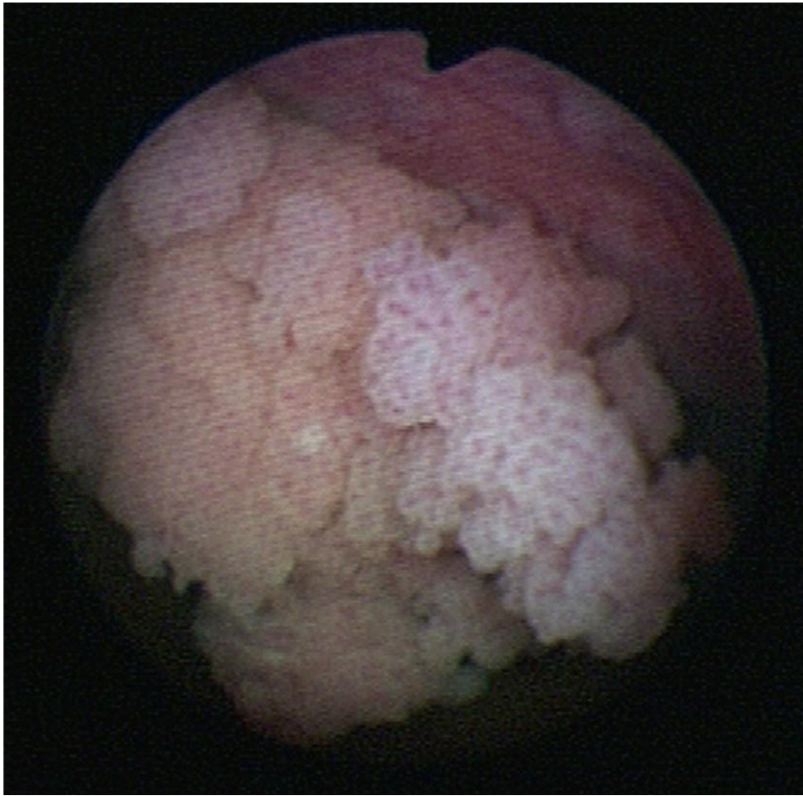


Blood clots, the prostate gland and stones can also be seen.

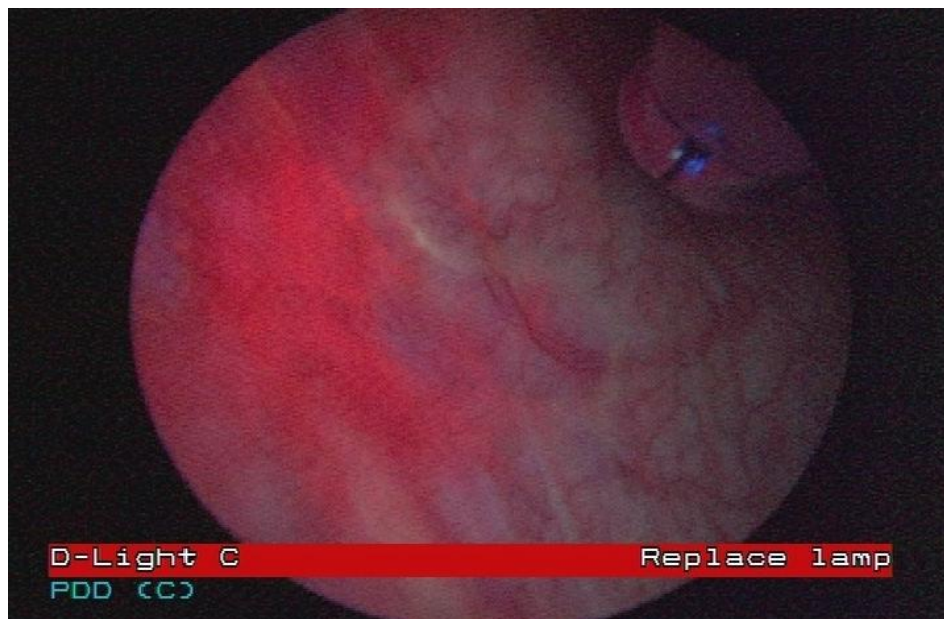
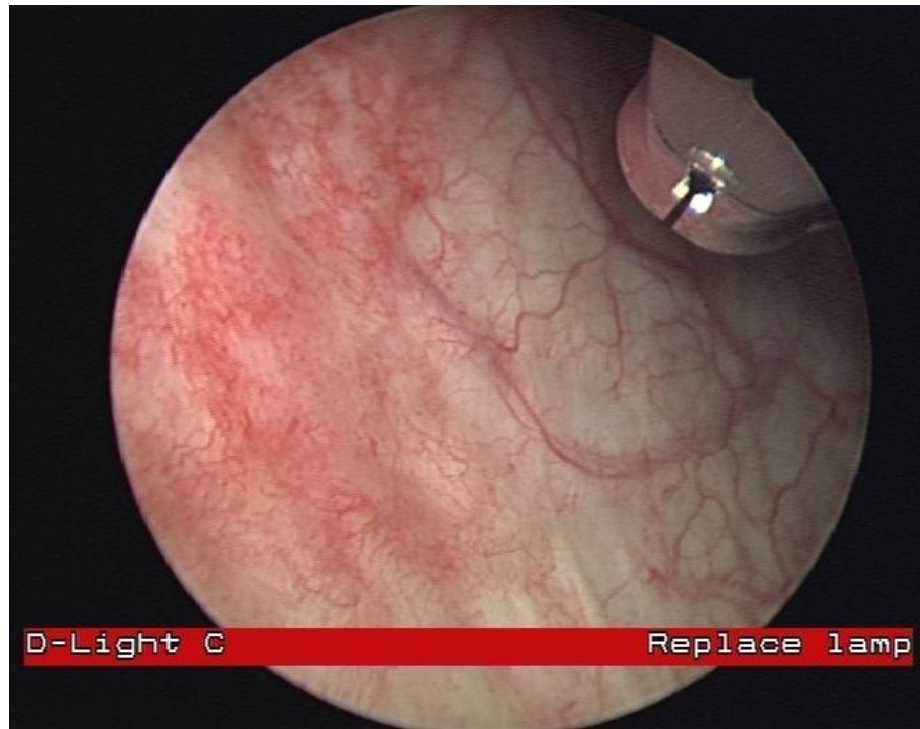
Blood clots typically have a heterogenous appearance and on Doppler no blood flow can be demonstrated. Stones will appear white and have an acoustic shadow. Ultrasound cannot reliably differentiate between a TCC at the bladder base and the prostate.

A cystoscopy must be performed.

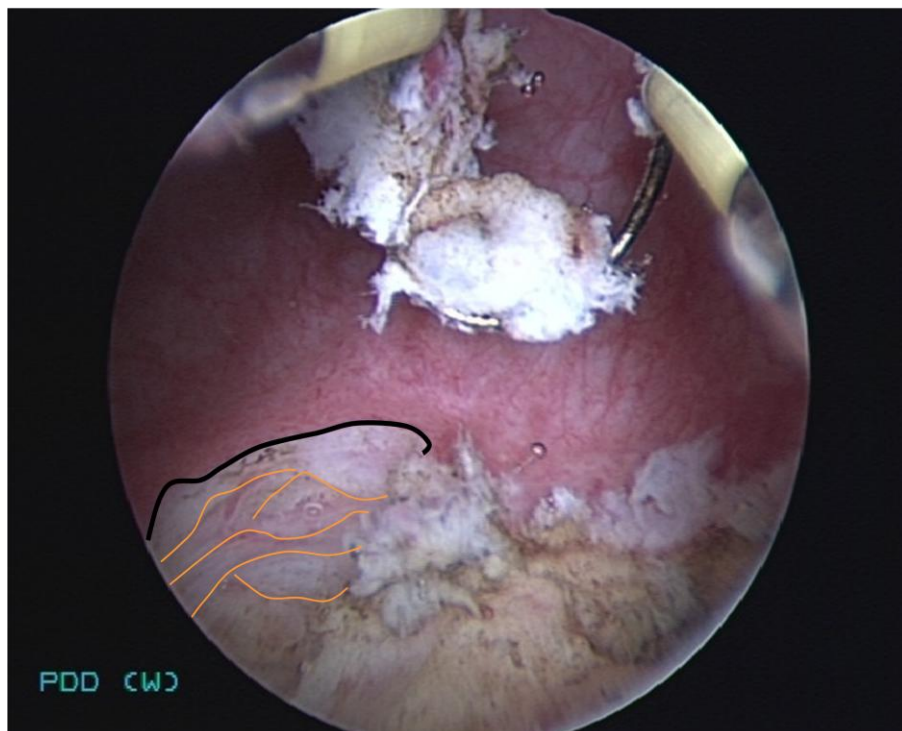
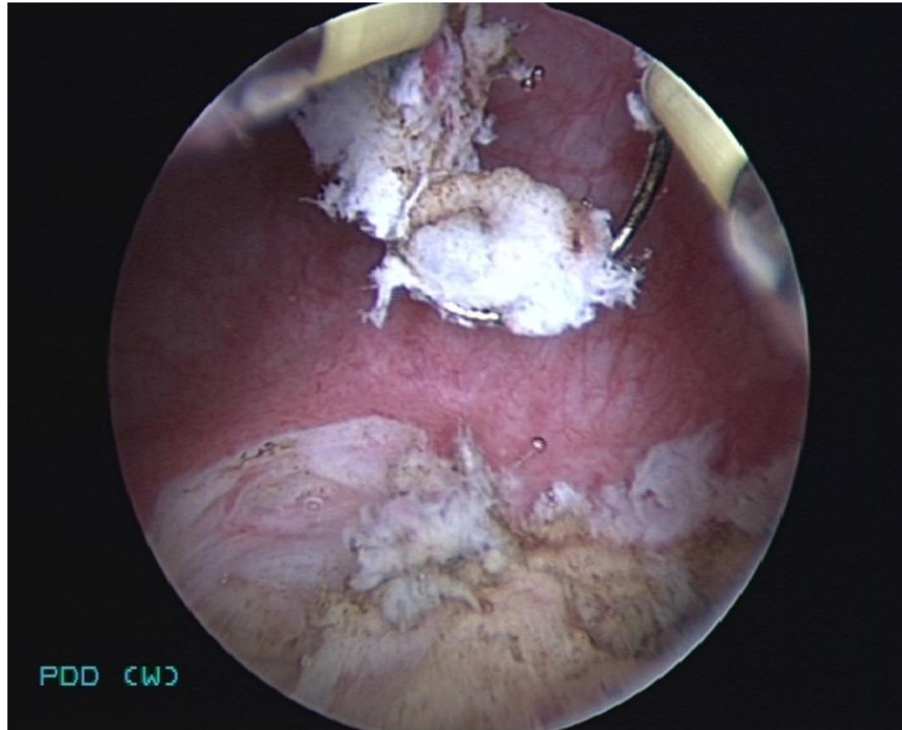
Bladder tumours have a very typical cystoscopic appearance (pink cauliflower!). Below are two examples. Note the proximity of the second tumour to the right ureteric orifice (arrowed).



Carcinoma in situ (CIS) can have a much more subtle appearance; a persistent red area is suspicious and can be made more obvious for the purposes of biopsy by placing an intravesical instillation of Hexvix. When blue light is used, CIS fluoresces pink.



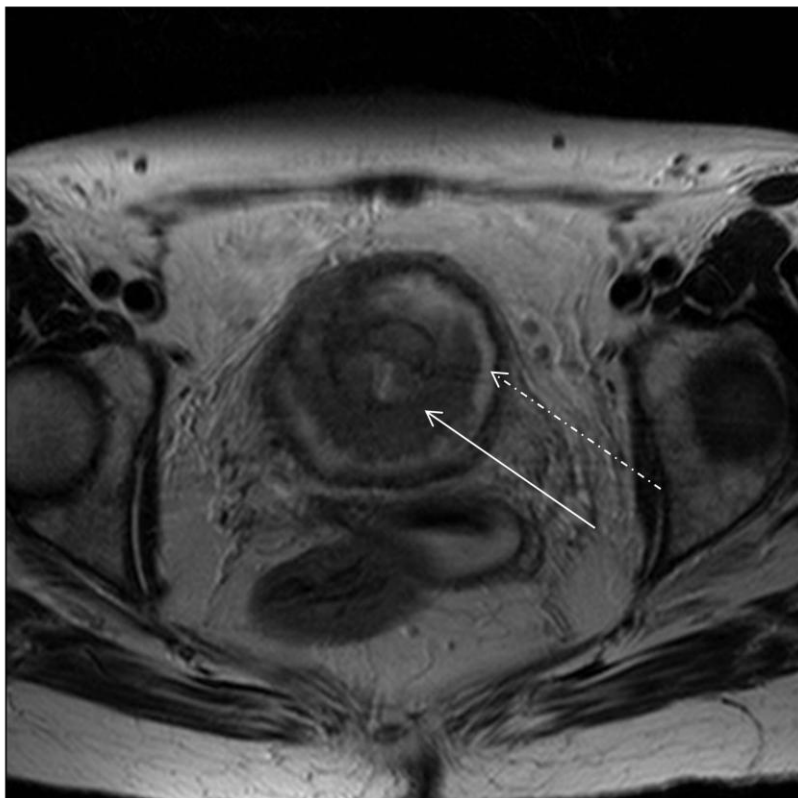
A transurethral resection of bladder tumour (TURBT) is performed, not only to confirm the diagnosis histologically, but also to stage the cancer. In order to do this the resection must include muscle fibres. On the second of the images shown below the urothelium is shown as a black line and the muscle fibres orange.



A CT scan is performed to determine if there is any extra vesical spread – lymphadenopathy, hepatic, pulmonary or bony metastases – or evidence of TCC in the upper tracts. In the CT scans below show the TCC as thickening of the bladder (arrowed). The first scan shows evidence of right sided parapelvic cyst.



An MRI is performed to stage the tumour. The first image is of a TCC protruding into the bladder (solid arrow) with spread into the extravesical fat, the second is of a tumour that is so large it is filling the bladder (solid arrow), the dotted arrow points to the bladder wall (the black area).



Below is a CT scan of a patient with advanced disease – there is a large hepatic metastasis and destruction of the pubic ramus (circled)

