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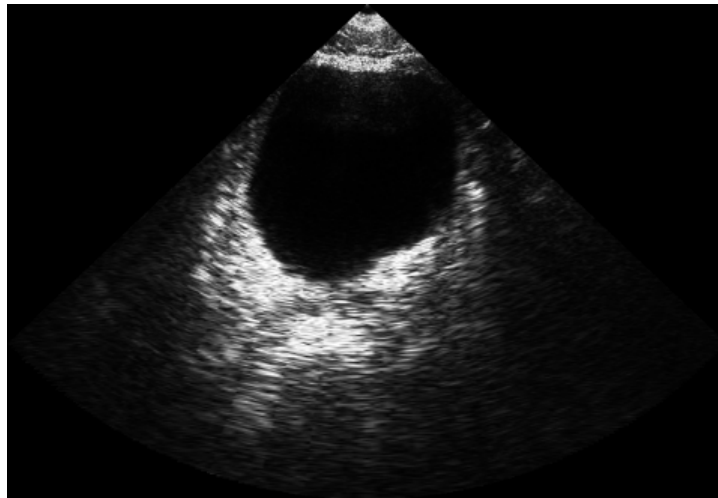
## VETERINARY APPLICATIONS TRAINING SERIES

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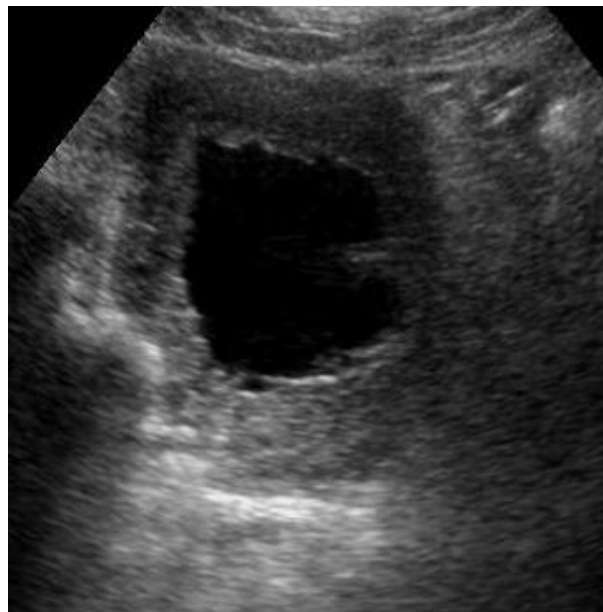
### INTRODUCTION TO URINARY BLADDER PATHOLOGY

The urinary bladder is easy to locate and a quick look Signos scan can yield significant information.

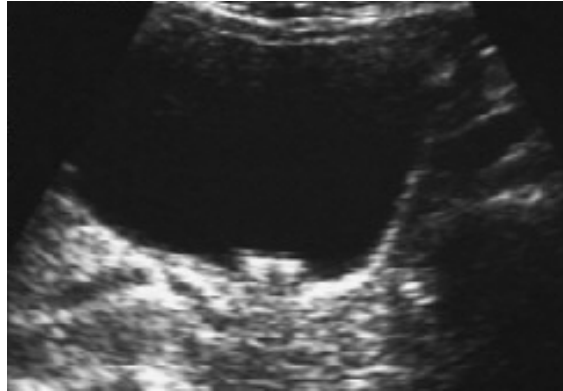
**Normal appearance of the Urinary Bladder** - The appearance of the bladder depends on its degree of fullness, the sex of the animal which determines surrounding anatomy and the species or breed. However the lumen of the normal bladder should be universally anechoic or black on the screen and its wall should be thin and barely visible.



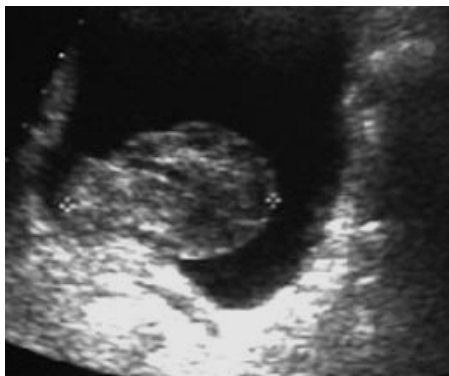
**Cystitis** - The critical diagnostic feature of cystitis is a **global bladder wall thickening** as seen in the image below.



**Bladder Calculi** - Bladder calculi will be seen within the lumen of the bladder as typically rounded echogenic (or bright) structures that lie in a gravity dependent position (i.e. the deep aspect of the bladder). When large they will cast an acoustic shadow as shown in the image on the left. Smaller calculi will not cast a shadow as seen with the pair of small calculi in the image to the right.



**Tumour** - The typical diagnostic feature of a bladder tumour is a **focal-wall thickening**. The path of least resistance is for the tumour to grow into the lumen of the bladder. When a bladder tumour becomes large it may breach through the outer bladder wall and invade locally as seen in the case to the right (extension marked with an \*).



View a video clip demonstrating this clinical application at [www.signosticsmedical.com](http://www.signosticsmedical.com).

#### DISCLAIMER

This information is intended for educational purposes and to provide instruction in the operation of your Signostics ultrasound device. The techniques and procedures described should only be performed by a qualified clinician. The applicability of these techniques and procedures should be independently verified. Use of the information contained within this document is at your own risk.