Emphysematous cystitis is a urinary bladder condition that is characterized by intraparenchymal gas within the urinary bladder wall. The gas is formed by bacterial fermentation of urine glucose or other urine substrates. It is usually reported in dogs with diabetes mellitus that have marked glycosuria as a result of diabetic dysregulation.

These radiographs are from different dogs with different underlying problems. The top figure shows mottling within the bladder wall of a diabetic dog that had not yet been treated with insulin. The mottling is caused by accumulated gas bubbles in the bladder wall. The bottom figure, which appears to be a pneumocystogram, is in fact a plain radiograph of an atonic bladder caused by a lumbosacral lesion that was interfering with bladder emptying. A secondary bacterial infection from urine stasis was causing the air accumulation that is shown. Management for both conditions requires urine culture and sensitivity, appropriate antimicrobial drugs, and treatment of the underlying disease.

Article archived on www.cliniciansbrief.com