

What is Your Diagnosis?

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Signalment

A eighteen kilogram, 7 year-old, castrated male, Bangkeaw dog.

History

The patient was showed up to the diagnostic imaging unit, the Small Animal Teaching Hospital, Faculty of Veterinary Science, Chulalongkorn University due to the chief complains of stranguria after the operation of scrotal urethrostomy.

Clinical examination

General physical conditions of the dog include dehydration status, color of mucus membrane, heart rate and sound, respiratory rate and sound, and body temperature were in normal limit. However, the urine odor was abnormal and the patient revealed the vesical tenemus.

Radiographic examination

Due to the abnormal clinical signs such as stranguria, vesical tenemus and abnormal urine odor of post-operative scrotal urethrostomy, the patient was subjected for the abdominal radiography to evaluate the abnormalities of intra-abdominal urinary system.

What is your diagnosis?
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Radiographic findings

The abdominal radiograph, especially the lateral recumbency of the dog revealed an irregular shape, soft tissue density mass (4.2 x 3.6 cm in diameter) at the caudoventral abdomen, which the mass was dorsally compressed the caudal descending colon (Figure. 1). The parenchymal appearance of the mass that was suspected to be prostate gland, was heterogeneous with focal, irregular shape, radiolucent

infiltration that the enlarged image showed a moderate amount of gas accumulation at the mid prostatic area (arrow; Figure. 2). In addition to a soft tissue mass at the caudoventral abdomen, the sclerotic-bridging lesion was found the ventral area of the lumbosacral joint. Other intra-abdominal organs were in normal limit.

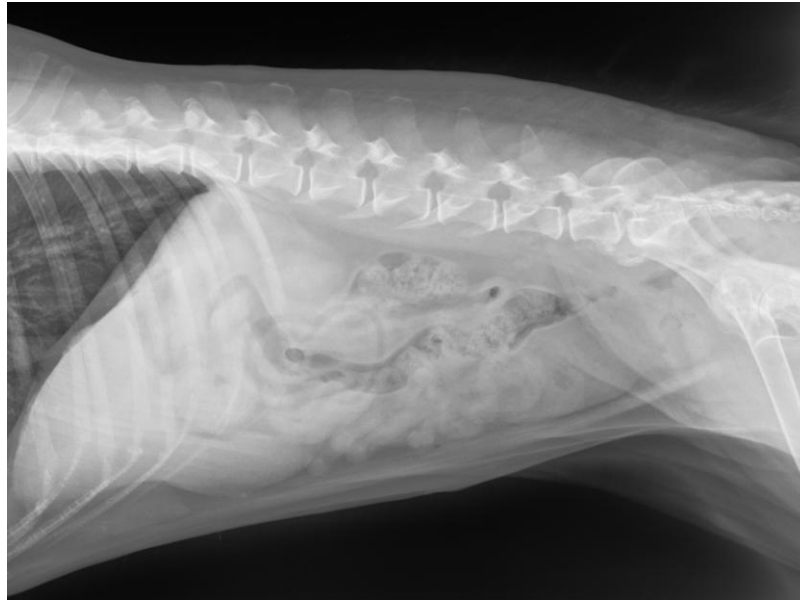


Figure 1 The right lateral abdominal radiograph revealed an irregular shape soft tissue density mass at the caudoventral abdomen that dorsally compressed the caudal descending colon. The architectural pattern of the mass was heterogeneous due to the small amount of radiolucent lesion. In addition, the sclerotic-bridging lesion was found at the ventral area of the lumbosacral joint.



Figure 2 The enlarged image of the caudoventral abdominal radiograph on the Figure1, the parenchyma of the caudoventral soft tissue density mass, which suspected to be the prostate gland, was heterogeneous due to a small amount of gas infiltration (arrow).

Radiographic diagnosis

Emphysematous prostatitis

Discussion

Prostatomegaly is one of common diseases found in senile, male dogs. Among those, the most common prostatic disease in intact is benign prostatic hyperplasia (BPH) where as the prostatic carcinoma was reported to be higher incidence of prostatomegaly in the castrated dogs (Lattimer and Essman, 2013). The clinical signs of dogs that affected with prostatomegaly would be varied to the causes; however, the abnormalities of lower urinary tract such as stranguria that has found in this patient including hematuria or pyuria will be normally detected. Radiographically, prostatomegaly will be determined as a soft tissue density mass at the caudoventral abdomen on the lateral projection that could cranially push the bladder and dorsally displaced the caudal descending colon and rectum. Feeney and colleagues (1987) has indicated that prostate gland height overt than 70 percentage of the length of sacral promontory to the pubic brim would considerate to be prostatomegaly. In addition, radiographic parenchymal appearance could provide further information. Generally, prostate gland will show as soft tissue density in parenchyma. The alteration of radiographic density of prostate gland will be indicated specific abnormalities. In the castrated male dogs, mineralization was reported to be

related to the prostatic neoplasia (Bradbury et al., 2009). On the other hands, radiolucent lesion on the prostate gland usually indicate to the gas accumulation due to the gas-forming bacterial (Rohleder and Jones, 2002). In this patient, the clinical and radio-graphical signs were found at the post-operative scrotal urethrostomy, it would be possible that post-operative infection would cause the radiolucent gas infiltration on the prostatic parenchyma. For precise treatment plan, further diagnostic tools such as urinalysis, urine culture and sensitivity test including ultrasonography of the prostate gland and adjacent lymphocenter would provide valuable information.

Reference

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