Diagnostic Imaging of a Space Occupying Fatty Mass in the Retroperitoneum and Pelvic Canal in a Dog

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Signalment: An 11-year-old, spayed female, weighing 10 kg Schnauzer was admitted for abdominal distension, anorexia, pollakiuria and constipation. This dog showed leukopenia, increased liver enzyme and increased amylase on the blood profiles.

Results: A large, homogeneous fat opacity mass in the retroperitoneum and pelvic canal was identified on abdominal radiography. This mass displaced the descending colon ventrally and left laterally and urinary bladder ventrally. Mild hepatomegaly and splenomegaly were also identified. The mass was isoechoic or mild hyperechoic to the adjacent muscular tissue and had inner hyperechoic striation on abdominal ultrasonography. And it showed no contrast enhancement and homogeneously same attenuation ($-180 \sim -110$ HU) as normal fat on computed tomography (CT). It was no evidence of invasion into the surrounding structures or organs. Cytologic findings revealed the mass was consisted of numerous sheets and clusters of adipocytes, which was diagnosed as a fatty mass through fine needle aspiration. Differential diagnoses for the mass included panniculitis, reactive fibroplasia and neoplasia of mesenchymal origin.

Clinical Relevance: A fatty mass compressed the urinary bladder and descending colon ventrally and caused clinical signs in this case. This type of mass in the retroperitoneum and pelvic canal is thought rare in dogs. It is considered that abdominal radiography, ultasonography and CT could find out the cause of the clinical signs and provide useful information on making diagnosis and planning further treatment of a fatty mass.

Key words: a fatty mass, retroperitoneum, pelvic canal, imaging diagnosis, dog

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