

Ultrasonographic Diagnosis of Pneumoperitoneum Caused by Mast Cell Tumor in a Dog

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Signalment: A 7-year-old female maltese dog was admitted to the Gyeongsang National University Veterinary Teaching Hospital because of thoracic and perineal mass. On history taking, the dog had been anorexia and vomiting for a week ago.

Results: CBC revealed mild leukocytosis and severe regenerative anemia. Abdominal radiography revealed multiple gas opacities in upper abdomen. On ultrasonography, a large amount of echogenic free abdominal fluid was detected in the abdomen. In addition, There are enhanced peritoneal strip sign indicating peumoperitoneum in the upper abdomen. FNA of the mass was performed and the result was mast cell tumor. Duodenal perforation caused by mast cell tumor was identified on laparotomy.

Clinical relevance: Enhanced peritoneal strip sign on ultrasonography is a reliable and accurate sign of pneumoperitoneum. The presence of fluid in the abdomen greatly aids in detecting EPSS. It has the potential to differentiate between emphysematous conditions of fluid filled viscera and pneumoperitoneum.

Key words: mast cell tumor, EPSS, ultrasonography, pneumoperitoneum