

## **Pulmonary Anaplastic Carcinoma in a Dog**

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**Introduction:** Primary lung tumor rarely occurs in the dog. Especially, squamous cell carcinoma and anaplastic carcinoma occur much less frequently.

**Materials and methods:** A seven-year-old male, intact Miniature Schnauzer with history of vomiting, anorexia and mild dyspnea, was referred to Veterinary Medical Center of Chungbuk National University for further evaluation and treatment.

**Results:** The patient revealed abdominal distention and hypodynamia. Thoracic radiographs showed the increasing of soft tissue density in right caudal lung field, and abdominal radiographs showed signs of ascite, such as abdominal distention and mild to moderate serosal detail loss. In ultrasonography and Computed Tomography, the mass compressing the caudal vena cava (CVC) was detected. According to history taking, physical examination and diagnostic imaging, it was suggested as primary lung tumor. Exploratory thoracotomy was performed and the mass was resected. On histopathologic examination, the mass was diagnosed as anaplastic carcinoma, which is rarely observed in dogs. The patient died approximately 3 weeks after surgical procedure.

**Clinical relevance:** Definitive cause of death was unclear, because the necropsy can not be performed. But there was continuous recurrence of the ascite after operation, and it was considered that invasion of the tumor into the CVC may narrow the diameter of the lumen. In human cases, if chest tumor invade the great vessels, the resection of the lesion and vessel reconstruction may be feasible. To improve QOL of animal with tumor which affect the vessels at the chest region, active intervention through surgical and medical treatments are expected.