J Vet Clin Vol. 24, No. 1(Suppl.) May (2007)

Familial Glomerulonephropathy in the Cocker Spaniel

Ho-Hyun Kwak, O-Serng Kwon, Suk-Hun Oh, Hyeong-Sun Moon,
Geong-Dong Choung, Heung-Myung Woo, Byung-IL Yoon*

School of Veterinary Medicine, Kangwon National University, Chuncheon, Korea

In the present study, we address systemically a familial renal disease case developed in an 1 year-old male cocker spaniel dog in terms of clinical signs, clinical pathology and pathological examinations. The animal has been suffered from renal dysfunction signs such as polyuria, anorexia, vomiting, diarrhea and weight loss and subjected to a local animal hospital in Chuncheon. The dog was very weak and emaciated and had foamy contents with foul-smell in oral cavity. Blood was counted using hemocytometer (hemacyte) and differential leukocyte count was performed after Wright and New methylene blue stains of the blood smears. Serum chemistry and urinalysis were also performed using the routine methods. Despite of symptomatic treatments, the dog was getting worse in healthy condition and dead in the end. We performed necropsy for histopathological examination. For histochemistry, trichrome and Periodic Acid Schiff (PAS) stains were performed in the paraffin embedded kidney sections. The animals showed notable decrease in the number of red blood cells with severe decreases of hemoglobin and hematocrit as well as MCV and MCHC values, indicating microcytic hypochromatic anemia. In serum chemistry, BUN, creatinine, phosphorous, Na and Cl, which are associated with renal function, were dramatically increased. In addition, ALT, AST, ALP, cholesterol, lipase and amylase were also significantly elevated, while K concentration was notably decreased. Urinalysis indicated prominent proteinuria with increase of bilirubin. On necropsy, both kidneys were brownish, pale, slightly small, and have diffuse, firm and subcapsular pits. Histologically, the kidneys indicated prominent segmental or diffuse interstitial fibrosis in both cortex and medulla as well as glomerulosclerosis and glomerulonephritis, further confirmed by trichrome and PAS stains. The clinical signs, clinical pathology and histopathological abnormalities of the dog presented was consistent with chronic glomerulonephropathy with sclerosis, diagnosed as familial renal disease.

* Corresponding author: byoon@kangwon.ac.kr