Case Report: Treatment of an Elderly Dog with Concurrent Heart Disease and Acute Uremia by Hemodialysis

Kun-Wei CHAN, Tsung-Ying PING, Shih-Jen CHOU, Zhi-Jia ZHENG, Wei-Cheng YANG, Jyh-Mirn LAI, Dan-Yuan LO, Chih-Cheng CHANG, Jui-Te WU

Graduate Institute and Department of Veterinary Medicine, National Chiayi University. No. 580, Xinmin Rd., Chiayi 60004, Taiwan
College of Agriculture Veterinary Teaching Hospital, National Chiayi University. No. 580, Xinmin Rd., Chiayi 60004, Taiwan

(Received: November 13, 2012. Accepted: December 26, 2012.)

ABSTRACT A 15-year-old mixed-breed dog that presented with anorexia and lethargy for 4 months was diagnosed with chronic kidney disease (CKD) and cardiac disease. The patient presented clinically in poor physical condition showing stupor and acute vomiting. Complete blood count (CBC) and serum biochemical analysis showed severe anemia and blood urea nitrogen (BUN, 145 mg/dL); creatinine (3.9 mg/dL) and phosphorus (17.2 mmol/L) were also elevated. Hemodialysis was performed after fluid therapy did not improve the condition of the patient. Hemodialysis successfully treated the acute-phase CKD and improved the kidney compensation function. 

INTRODUCTION

Hemodialysis is an effective therapy that is used to remove uremic toxins and correct deficits and excesses in fluids, electrolytes, and acid-base imbalances associated with renal failure. Numerous veterinary cases have reported that hemodialysis is an effective method to reduce blood metabolite and toxin concentrations for acute kidney injuries when supportive care cannot improve the situation [5]. In this case, the severe uremia of the patient was markedly improved with hemodialysis treatment, which supports the efficacy of this treatment for chronic kidney disease (CKD) in the acute phase.

CASE HISTORY, DIAGNOSIS AND TREATMENT

A 15-year-old spayed female mixed-breed dog weighing 7.2 kg was referred to National Chiayi University Veterinary Teaching Hospital on June 5, 2011. The patient was fed home-made food and lived outdoors, and had complete records of heart worm prevention and deworming; however, a complete vaccination record was not provided. According to the owner’s description, the patient was in a stupor and