Transjugular Coil Embolization of an Intrahepatic Portosystemic Shunt in a Pekinese Dog

Seung-Gon Lee, Hyun-Wook Kim¹, Changbaig Hyun*

Section of Small Animal Internal Medicine, School of Veterinary Medicine, Kangwon National University, Chuncheon, 200-701 Korea,

¹Haemaru Referral Animal Clinic, Sungnam, Korea

Intrahepatic portosystemic shunts (IPSSs) are vascular anomalies that may result from failure of ductus venosus to close after birth. In breed predisposition of IPSS, large breed dogs are more likely to have IPSS than small breed dogs and cats. To date, many correction method have been developed for closure of IPSS. Among these methods, interventional radiologic techniques including transjugular coil embolization is the most reliable and the safest method because numerous surgical procedures for attenuation of IPSSs showed several complications and increased risk factors of mortality.

A 1.8 year-old, intact female Pekingese dog (weighing 3.1kg) was referred to Veterinary Teaching Hospital at Kangwon National University to close IPSS with a transjugular coil embolization. She have been well managed by referring clinic with metronidazol, lactulose, a protein-restricted diet, and numorous anti-oxidant drugs for 12months after diagnosed as a IPSS. On the pre-operative tests, high grade heart block and coagulation disorders including activated partial thromboplastin time (APTT) and prothrombin time (PT) were identified as major risk factor of anesthetic procedure.

Blood transfusion with fresh frozen plasma was infused to the patient to normalize coagulation disorders. For more safe maintenance of anesthesia, atropine and nalbuphine for a premedication, propofol for an induction, and isoflurane as maintenance were used. Coil embolization of the patent venosus located in intrahepatic region was successfully performed under guidance of fluoroscopy. Clinical signs of patient gradually improved without any complications. This is a rare case of IPSS with high grade heart block in Pekingese.

This study was supported by Research fund from Korean Research Foundation (KRF-2006 -331-E00369).

^{*} Corresponding author: hyun5188@kangwon.ac.kr