Transvenous Occlusion of Patent Ductus Arteriosus Using a Canine Ductal Occluder in a Cocker Spaniel

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Signalment: A 4-year-old female Cocker Spaniel dog was presented with exercise intolerance and loud precordial thrill from pup.

Results: Physical examination revealed grade VI/VI continuous murmur over the maximal point of left basal area, bounding femoral pulse, and no differential cyanosis. Splintered tall R wave (4 mV) was detected in electrocardiogram, suggesting left ventricular enlargement. Diagnostic imaging studies showed enlarged left ventricle, bulged descending aorta (dAo), markedly dilated right pulmonary artery, and continuous shunt flow between dAo and main pulmonary artery (MPA). Based on these findings, the dog was diagnosed as left to right shunted patent ductus arteriosus (PDA). The maximal diameter of PDA (7 mm) was determined by angiographic study and an 8 mm Amplatz○R canine duct occluder (Infiniti Medical, USA) was chosen. The PDA occluder was successfully applied through transjugular approach. Doppler echocardiographic study performed at the following day revealed successful occlusion of PDA in this dog.

Clinical relevance: We found that this new occlusion device was more effective and less time consuming for treating PDA in dogs. To our best knowledge, this is the first case of PDA occluded by the PDA occluder though transvenous approach in a dog.

Key words: PDA, dog, duct occlude

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