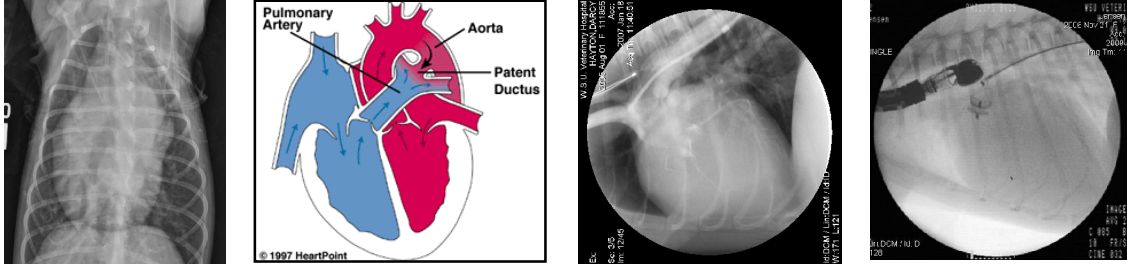




PATENT DUCTUS ARTERIOSUS



Your pet has been diagnosed with a patent ductus arteriosus (PDA). This vessel is present in fetal life so that blood can bypass the yet functioning lungs. Once exposed to oxygen after birth, this vessel should close. In your pet this closure did not occur.

In order for you to understand how this disease may affect your pet, it is important to understand how blood travels through the heart. The venous blood from the body drains into the right atrium, through the tricuspid valve, and into the right ventricle. The right ventricle then pumps this un-oxygenated blood to the lungs through the pulmonic valve into the pulmonary artery. Moving through capillaries, the blood picks up oxygen from the lungs. This blood then drains through large pulmonary veins into the left atrium, through the mitral valve and into the left ventricle where it is pumped through the aorta and back to the body.

In your pet's case the open vessel (the PDA) causes a portion of the blood from the aorta to shunt to the pulmonary artery through the lungs and back to the left side of the heart. This causes overcirculation of the lungs and left heart. This overcirculation causes the left heart to dilate over time and increases the pressures in the left heart over time. The increase in pressure in the left heart and the pulmonary veins (the vessels that drain into the left heart from the lungs) eventually causes fluid to exude into the lungs which is a condition called congestive heart failure. Symptoms of congestive heart failure include trouble breathing, coughing, and exercise intolerance. Untreated, it is fatal.

The good news is that this condition is repairable with an interventional or surgical procedure. If repair occurs early in life and is successful, your pet will have a normal life expectancy and quality of life. Most pets with this condition are candidates for interventional occlusion of the defect. This consists of anesthetizing your pet and placing a catheter into the femoral artery to deploy a device in the defect. The device then prohibits blood from crossing the defect. If your pet is too small or the defect is of a shape that is not amendable to interventional repair, surgical closure can be performed.

Occasionally the pressures in the lungs are high with this defect. If the pressures are high in the lungs it may prohibit closure of the defect. If this condition is present in your pet we will discuss therapeutic measures that can be performed.