



Martin Referral Services

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Owner Information

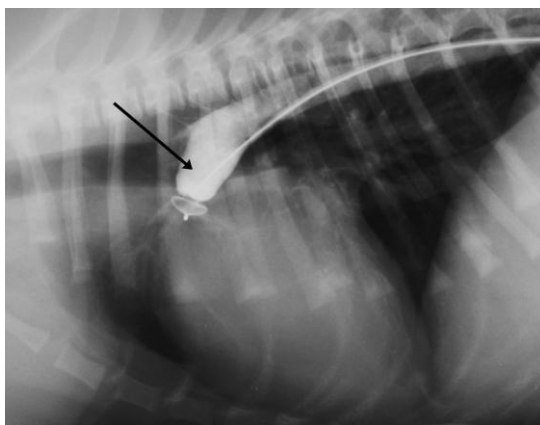
Patent Ductus Arteriosus (PDA)

Patent ductus arteriosus (PDA) is a vessel connecting the two major cardiac vessels (the aorta and the pulmonary artery) which should have closed at birth (its effects are like a “hole in the heart”). Uncorrected, a PDA leads to progressive heart enlargement and heart failure with lung congestion. If left untreated approximately 50% of dogs with a PDA die in the first year of life.

PDA closure involves passing catheters via the artery in the hind leg (‘keyhole’ surgery) and ‘plugging’ the PDA with an occlusive device (Amplatz Canine Duct Occluder) to stop flow through it. This device has been specifically designed for use in dogs and is the latest device currently used for PDA closure. Measuring the diameter of the duct accurately is important in selecting the correct size of device to close the defect properly. In our hands the success rate has been very high and the hospitalisation time only involves an overnight stay after the procedure and there is minimal pain compared to traditional surgery.



The Veterinary Cardiorespiratory Centre is one of the few specialist centres in the UK to regularly perform PDA closure. Due to our considerable experience we have a high success rate and the long-term outcome is very good.

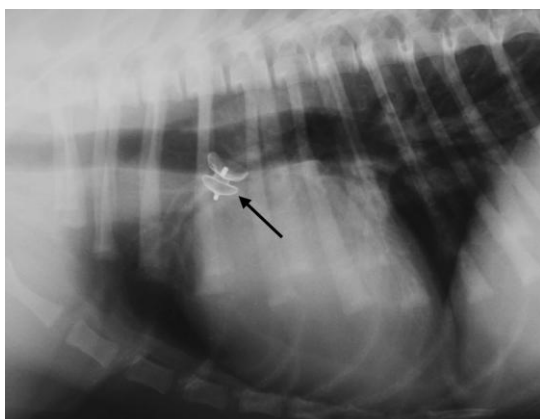


This radiograph (x-ray) shows an angiogram, which appears white to highlight the blood vessel (arrowed) to test the effectiveness and positioning of the ACDO before being released from the delivery catheter. There is no contrast (‘dye’) escaping past the ACDO which indicates that it is in a good position and providing complete closure.

To see a movie of an angiogram and release of the ACDO visit us at:



<http://www.youtube.com/user/mikemartinheartvet>



Once the above test has confirmed the ACDO (arrowed) is in a good position, it is then released from the delivery catheter.

Closure of the PDA by a catheter-based technique is a successful and worthwhile procedure. The prognosis is excellent with a normal life expectancy, when there is no heart enlargement or evidence of congestive failure. However if there is already heart enlargement or lung congestion then a return to normal heart function is not always seen and whilst heart failure is often slowed, in some badly affected dogs it does still progress.

PDA closure cont/....

Before recommending PDA occlusion, a thorough ultrasound scan by our cardiologist (and sometimes chest x-rays) is necessary to check for signs of heart enlargement or congestion, as well as assessing to what degree heart function is reduced and to measure the size of the PDA to select the size of occluder required. Also to double check for any other concurrent defects.

Long term management

A follow-up scan by a cardiologist 6 to 12 months following surgery is important (for which there will be an additional charge). This is to check for the presence of residual flow, assess heart size and function, and ensure that heart strength is good.

IS YOUR PET READY FOR A STERILE PROCEDURE?

It might seem obvious, but for any sterile procedure it is important your pet is not dirty and does not have any skin infection (including fleas) that could contaminate the surgical site or any implants. Ask your vet to check for any infection that might be hidden under a thick coat, especially inside the hind legs. If necessary, please bath your dog prior to your appointment.