NEWF SCENE

The Newsletter of THE NEWFOUNDLAND CLUB

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Sadly Davie and Cathy Lyall lost Deacon with Pericardial Effusion in January 2001, and at their request Nicole very kindly wrote the following to inform others and has given permission for its publication in *Newf Scene*.

PERICARDIAL EFFUSION NEWSLETTER

Pericardial effusion is the accumulation of fluid in the sac around the heart, known as the pericardium. The fluid can be watery, bloody or pus-like. The sac around the heart is distendable, but only to a limited extent. When the sac is maximally stretched with fluid, further accumulation of fluid will start compressing the heart (also called "tamponade"). As a result, no blood can return to the heart, and very little is pumped out of the heart, causing typical clinical signs

There are multiple causes of pericardial effusions in dogs, but the most common reasons are "idiopathic pericardial effusions" or tumours. Idiopathic means "we do not know the origin" and the most commonly seen tumours are tumours of the blood vessels, heart base tumours and tumours originating from pericardium itself.

Idiopathic pericardial effusion occurs primarily in medium to large breed dogs, with Golden Retrievers and Labrador retrievers most commonly affected. Other breeds like St-Bernards, Newfoundland dogs and German Shepherds have also been reported, together with many other breeds. The age varies from 1-14 years (average of 6 years), and males are more commonly affected than females.

Dogs with pericardial effusion are often exercise-intolerant, show signs of weakness and sometimes lose their appetite. Idiopathic pericardial effusions build up insidiously (most cases develop over a period of days to a few weeks) and therefore the clinical signs are often overlooked. Tumours tend to bleed more acutely, and therefore animals are often presented collapsed with pale mucous membranes.

The clinical findings associated with pericardial effusion include a fluid-filled distended abdomen, increased respiratory rate, increased heart rate, pale mucous membranes and muffled heart sounds.

Idiopathic pericardial effusions should be distinguished from the more common dilated cardiomyopathy because treatment and outcome are completely different. It is therefore recommendable to ask for a veterinary cardiologist's opinion, if the above clinical signs are noticed.

The diagnosis of pericardial effusion is made on the basis of the clinical examination, electrocardiography, thoracic radiography and echocardiography.

On radiography, the cardiac shadow loses its outline and becomes very enlarged and g l o b u l a r in shape (see photograph 1). Dilated cardiomyopathy and some congenital defects may occasionally produce similar radiographic findings, making definite diagnosis

difficult by radiography alone. Echocardiography is superior for the diagnosis of pericardial effusions and is very important to rule out tumours (photograph 2: black is blood or fluid, LV: left ventricle, RV: right ventricle, PE pericardial effusion).

Treatment for pericardial effusion consists of drainage of effusion under sedation and local anaesthesia. Medical therapy is rarely of benefit. The obtained fluid will be analysed for malignancy because a normal echocardiogram does not always exclude the absence of tumour.

In case of idiopathic pericardial effusion 50 % of the animals will have a second episode and pericardectomy (cutting away the sac around the pericardium after repeat drainage) is strongly recommended at that stage, because 75% will have a third episode. Pericardectomy is most commonly performed by thoracotomy ("open-chest surgery"), but there are recent reports of keyhole surgery. With repetitive occurrence of pericardial effusions, the pericardium has tendency to thicken and cause restriction to the filling of the heart. Once the pericardial sac has been removed, the prognosis is very good and most animals will have a normal lifespan.

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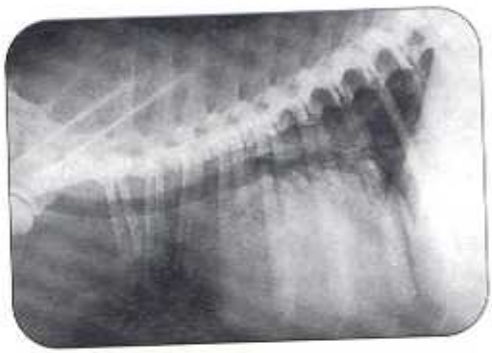

Photo 1

photo 2