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PERICARDIAL EFUSION IN DOGS

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Pericardial Effusion is the name given to the accumulation of fluids in the pericardial sac, generating cardiac tamponade which in turn causes an increase in intraperiodic pressure, compromising cardiac function and generating congestive heart failure (CHF) both left and right, and finally, collapse of the cardiac chambers. In this literature review, the causes, symptomatic presentation, diagnosis and treatment of Pericardial Effusion in dogs will be discussed. The databases consulted to carry out this summary were Editor MedVet, FAV/UnB and DVT. Congenital causes of Pericardial Effusion include diaphragmatic hernias peritoneopericardial cysts and pericardial cysts, as well as idiopathic or infectious pericarditis and left atrial rupture. However, neoplastic origin is the most common, with hemangiosarcoma being frequently observed. Clinical signs include muffled heart sounds, ascites, pleural effusion, compensatory tachycardia, dyspnea, limb edema and sudden death. It is important to note that chronic patients present milder signs, such as anorexia, lethargy, weakness and exercise intolerance, which develop over an extended period and may pass unnoticed by the animal's owner. Radiography may reveal a globe-shaped cardiac silhouette, pleural and abdominal effusion and pulmonary edema. The Echocardiogram is the test of choice for diagnosing Pericardial Effusion, being quickly identified by the presence of the anechoic space around the heart, between the parietal pericardium and the dog's epicardium, in addition to being able to identify cardiac masses, if present. The fluid present in the pericardial sac is indicative of its cause, with the hemorrhagic fluid signaling hemangiosarcoma, left atrial rupture, coagulopathies, trauma and uremic

pericarditis; the transudate fluid suggesting peritoneopericardial diaphragmatic hernias, pericardial cysts, CHF and certain toxemias; and the exudative fluid revealing bacterial pericarditis or an idiopathic origin. The recommended procedure is immediate drainage of the fluid (pericardiocentesis), in order to reduce intraperiodic pressure. The dog must be positioned in left lateral decubitus, for wide trichotomy and antiseptics in the 7th right intercostal space, costochondral height or based on previously performed radiography. Sedation is indicated due to the delicate nature of the procedure. It is recommended to monitor the patient through the electrocardiogram and, if possible, the use of ultrasound to guide the puncture. With a catheter coupled to a three-way stopcock and equipment to conduct the fluid in Becker, the puncture is made in the chest wall, cranial aspect of the 8th rib, thus avoiding damaging the vessels and nerves in the area. Inserting the catheter until resistance is felt, puncture the pericardium and remove as much of the effusion as possible. At the end of the procedure, samples for analysis.

Cytology and fluid culture must be collected from the drained fluid, and the incision sutured appropriately. Complete spontaneous resolution is possible after two or three drainages in idiopathic cases, however, in other cases, pericardiocentesis is only effective in cardiac decompression itself, by removing the fluid in the pericardial space. It is concluded, therefore, that pericardial effusion is a common cardiac condition in dogs that requires extensive study and care by the veterinarian.

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