PERICARDIAL EFFUSION

What is it? Pericardial effusion is an accumulation of fluid in the pericardium (the sac around the heart). The fluid can result from tumors involving the heart or the pericardium, an inflammatory or infectious process or idiopathic (an unknown cause).

What animals are affected? Any animal can be affected, but it is most commonly seen in older, large and giant breed dogs.

What are the signs? Signs of pericardial effusion can range from weakness, mild decrease in activity and exercise tolerance, to acute collapse.

How is it diagnosed? Diagnosis is based on clinical signs, a muffled, weak or erratic heartbeat, imaging of the heart showing an enlarged cardiac silhouette, or radiographs and fluid around the heart on ultrasound.

How is it treated? Initial treatment involves removing the fluid from around the heart so it does not impede function of the heart. This procedure, called pericardiocentesis, is usually done with a long catheter and, if possible, ultrasound guidance. Longer term treatment involves a pericardectomy, removing a portion of the pericardium, or creating a window in the pericardial sac so the fluid will drain out into the chest and be absorbed, rather than accumulate and restrict the heart. This procedure is done surgically through an open chest procedure or laparoscopically using a scope and specialized laparoscopic instruments. If the cause of the fluid can be identified and treated, it is done at this time as well. Often times, we can simply manage the problem rather than cure it.

What aftercare is needed? After pericardiocentesis the patient’s condition typically improves, and they can go home for continued monitoring and restricted activity. After pericardectomy or pericardial window done via an open procedure, the patient will remain hospitalized for a day or two for postoperative pain management and monitoring. Once discharged, they will typically have restricted activity for 2-3 weeks. Thoracoscopy accomplishes this procedure in a minimally invasive way (without opening the chest), and, consequently, these patients have much less postoperative discomfort and recover more quickly.

What is the prognosis? The prognosis largely depends on the original cause of the fluid production, and whether we can adequately manage continued fluid production. Cases associated with a heart tumor have a very guarded to poor prognosis. Cases that are idiopathic may resolve with treatment.