



Hernia Repair Surgery

Hernia - Diaphragmatic in Cats

What is a diaphragmatic hernia?

The diaphragm is the muscular partition that separates the abdomen and the chest. Tearing or disruption of this thin muscle is called a *diaphragmatic hernia* or *diaphragmatic rupture*. The terms can be used synonymously with diaphragmatic hernia incorporating congenital forms such as peritoneal-pericardial diaphragmatic hernia (PPDH). PPDH may be due to defective development of the fetus. This condition is most often found in puppies or kittens and should be considered separately from the traumatic type of diaphragmatic hernia or rupture. Once a tear in the diaphragm is present, abdominal contents such as the stomach, liver, and intestines may enter the chest cavity. The abdominal contents compress the lungs and prevent them from fully inflating, causing respiratory distress. The abdominal tissues may irritate the heart muscle, which may cause abnormal heart rhythms. Fluid may leak into the chest cavity, further complicating and worsening heart and lung function.

What causes a diaphragmatic hernia or rupture?

"The most common cause of diaphragmatic hernia is blunt force trauma."

The most common cause of diaphragmatic hernia is blunt force trauma. This type of trauma can occur after a fall from a high place (such as out of a window), an automobile accident or a blow to the abdomen. Congenital diaphragmatic hernias are less commonly seen.

What are the clinical signs of diaphragmatic hernia?

Clinical signs are dependent on the severity of herniation. With small tears or in cats born with a diaphragmatic hernia, there may be no discernable clinical signs. Many pet owners report mild breathing difficulties, especially when the cat is stressed, and periods of mild gastrointestinal upset. In severe or acute cases, there is often respiratory distress, an abnormal heart rhythm,

muffled heart and lung sounds and other signs of systemic shock. The abdomen may feel empty when palpated.

How is a diaphragmatic hernia diagnosed?

Diagnosis is based on medical history, physical examination findings and radiographs. Blood and urine tests may be performed if the patient is showing signs of shock. In certain cases, ultrasound or special radiographic dye studies will be required for a definitive diagnosis.

What is the treatment for diaphragmatic hernia?

"Once the patient is stable, the hernia must be corrected surgically."

Treatment is first directed at stabilizing the cat if trauma has recently occurred. Some patients will require immediate thoracocentesis (a chest 'tap') to remove any fluid that has accumulated in the chest cavity. Once the patient is stable, the hernia must be corrected surgically. In congenital forms, surgical intervention as early as possible is important to prevent organ entrapment or scarring between the intestines and the chest cavity. Many congenital diaphragmatic hernias are discovered during ovariohysterectomy (spaying) and are corrected at that time.

What is the prognosis?

The prognosis for any patient with diaphragmatic hernia is always initially guarded. It improves if the patient has been stabilized and if the heart rhythm is normal. After surgery, the risk of a condition called re-expansion pulmonary edema may occur. Thus, a guarded prognosis must be given for at least twenty-four hours after an apparently successful surgery. The prognosis for a young kitten with a congenital diaphragmatic hernia is guarded to good, depending on the specific diaphragmatic defect and the abnormalities found during surgical correction.

If the patient stabilizes with medical treatment, is it possible to avoid surgery?

"The longer the corrective surgery is delayed, the more complicated and dangerous it becomes."

In trauma cases, adhesions may form between the lungs and any herniated abdominal contents after approximately seven days. These adhesions will affect the ability of the lungs to inflate properly. The longer the corrective surgery is delayed, the more complicated and dangerous it becomes. However, each case needs to be assessed individually.

If you have any questions, please feel free to contact us using the information below.

Thank You,



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