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Chylothorax:

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Chylothorax is the abnormal accumulation of lymphatic fluid rich in fats (triglycerides) within the chest cavity. This fluid may build up to the extent that patients have difficulty expanding their lungs, resulting in difficult or labored breathing. Chylothorax may develop as primary problem and have no obvious underlying cause. This is referred to as **idiopathic chylothorax**. This occurs most commonly in the cat. Occasionally, patients may develop chylothorax secondary to other problems, most commonly congestive heart failure or neoplasia (cancer).

Chylous pleural effusion is diagnosed on the basis of a combination of the history, physical examination, chest x-rays, and fluid analysis including triglyceride levels. Pleural effusion (free fluid in the chest cavity) is termed *chylous* if the fluid has a higher triglyceride level than that of the patient's serum (blood), and typically contains high numbers of a specific white blood cell known as the lymphocyte. Patients with chylous pleural effusion are said to have *chylothorax*. Ultrasound of the chest cavity is recommended in patients diagnosed with chylothorax to help rule-out underlying structural heart disease as well as to check for the presence of any masses or abnormal growths.

If underlying congestive heart failure or cancer is diagnosed, then patients with chylothorax are treated for their underlying problem. Patients suffering from idiopathic chylothorax (unknown cause) may be medically managed with low-fat diets with easily absorbable fats, as well as supplementation with a substance known as Rutin®. Cases that are refractory to medical management may benefit from a surgical procedure known as thoracic duct (TD) ligation. This is an open-chest procedure in which the surgeon identifies a lymphatic duct known as the thoracic duct and ties it off. A pericardectomy is commonly performed simultaneously. This is a separate procedure to remove a portion of the pericardium or the sac that contains the heart. Consultation with a board-certified veterinary surgeon is recommended for these cases.

The prognosis for patients with chylothorax varies with the underlying cause. Palliative drainage of the fluid (thoracocentesis) allows patients to expand their lungs better and improves breathing. Patients with idiopathic chylothorax may or may not respond to medical management and may or may not respond to surgical thoracic duct ligation. Patients that have long-standing chylothorax (i.e. for months) may develop secondary **fibrosing pleuritis**. This is a scarring of the surface of the lungs that further restricts the ability of the lungs to expand. Patients with fibrosing pleuritis may not significantly improve on medications or with surgery.