

Saddle Thrombus

By Dr. Karen Becker

Hi, this is Dr. Karen Becker, and today we're going to discuss saddle thrombus. Saddle thrombus is a quirky name for a very serious medical condition that occurs in cats, and much less often, dogs. It's also called aortic thromboembolism as well as feline aortic thromboembolism or FATE for short. The condition occurs in pets with heart disease and affects as many as 25 percent of cats with hypertrophic cardiomyopathy, which is a common feline heart condition.

FATE usually occurs without warning and can actually be the first and only sign of heart disease in some cats. In dogs, the additional causes of saddle thrombus include hyperadrenal corticoidism or Cushing's disease, protein-losing nephropathy (a kidney issue), as well as sepsis, which is a full-body infection.

An aortic thromboembolism is a blood clot that forms in the heart. A part of the clot dislodges and travels through the aorta. The aorta is the largest artery in the body. Actually it starts in the heart, of course, but it runs throughout the entire length of the back.

In the lower abdomen, the aorta splits into two arteries to supply the back legs. That's split where the aorta becomes the left and right iliac arteries, where the saddle is. Eventually, the dislodged blood clot gets stuck kind of in that wedge at the top of the saddle, and hence the name, saddle thrombus. It just kind of gets stuck on where it could go either way.

Symptoms

The signs of an aortic thromboembolism in kitties depend on where the blood vessels that are blocked are showing. If the blockage is total or partial, or if the clot moves past the saddle and enters into just one iliac artery, that hind leg will be involved. If it sits right at the bifurcation where the split is, both hind legs will be involved.

However, when blood circulation is blocked at the saddle, the rear limbs grow cold and hard as the muscle and nerves swell due to lack of oxygen and nutrients. The animal may drag one or both legs, have difficulty breathing, she may cry out or she may scream because of pain, she may open-mouth breathe or pant as well. The nails and the pads of the back feet may appear kind of bluish tinged from lack of oxygen, and the cat may show signs of shock as well. Sudden paralysis is also a common symptom in this condition.

Diagnosis

The onset of saddle thrombus symptom usually is very rapid and is absolutely a serious medical emergency. If you suspect that your pet is showing some symptoms of it, you need to go to the veterinarian right away.

The veterinarian can often detect a heart murmur or abnormal heart sounds. Certain signs of heart failure may already be present. The kitty's rectal temperature is usually low. The lower the temperature, the more serious the condition.

Diagnostic tests typically performed include a complete blood count (CBC) to check for anemia, infection, and blood clotting factors; a biochemistry profile to check for organ function; and chest X-rays

to really assess the size of the heart and the state of the lungs. An echocardiogram will check for the heart function and how much heart disease is present, and a Doppler test will confirm that there is a lack of blood flow to the rear limbs in general.

A pet with saddle thrombus is usually in shock and may already be in heart failure. The condition is life-threatening even with immediate veterinary care. Unfortunately, about a quarter of owners ultimately decide to euthanize their pet because of the extreme pain that the animal's in, the potential for the recurrence of the condition, and the need to manage the long-term heart disease even if we can get the animal over the crisis.

Treatment

For owners looking for treatment, the goal of clot management is to address the pain, provide supportive care in the form of fluid therapy, and the treatment of circulatory shock. This involves cage rest and a lot of nursing care to keep this paralyzed patient very clean and comfortable.

An alternative and very interesting treatment for FATE is actually medical leeching, which I've discussed in a previous video. Israeli veterinarian, Dr. Sagiv Ben-Yakir, has achieved about 90 percent success rate in returning cats with FATE to a normal life using leech therapy.

In addition to clot management, the underlying heart disease must be addressed. I recommend all cats that have survived an episode of saddle thrombus be placed on life-long ubiquinol, the reduced form of CoQ10. Prevention of the formation of additional clots is also important. I recommend a supplement called nattokinase for this purpose.

Most cats who survive a FATE episode regain normal limb function within a few months. However, they typically require a great deal of nursing care until they're once again mobile. Recurrences of aortic thromboembolism are common typically within a year or two of the first episode. Partnering with an integrative veterinarian using holistic preventive strategies is a really good idea.