

Acute Renal (kidney) failure

Metropolitan Veterinary Associates

2626 Van Buren Avenue

Norristown, PA 19403

tel: 610-666-1050

Emergency: 610-666-0914

fax: 610-666-1199

The kidneys have multiple important functions in the body. The main function it has is to remove toxic and waste products from the blood. Kidney failure means that the kidneys are unable to perform this function. In acute kidney failure this means that the problem develops over a short period of time such as several days or even hours.

Things that can cause kidney failure include a wide variety of causes. Toxins such as lilies in cats, raisins or grape ingestion in dogs, anti-freeze and certain drugs including over the counter human medications such as ibuprofen(Advil) can cause acute kidney failure. Severe infections of the kidney caused by bacteria such as Leptospirosis as well as severe dehydration from other systemic disease such as extreme vomiting, diarrhea, heatstroke, sepsis, hypercoagulable states that lead to clot formation, can all cause kidney failure.

Animals with acute kidney failure often show increased thirst and increased urination in the early stages of the disease. Vomiting, anorexia, lethargy as well as oral ulceration can be seen. In later stages of the disease process animals can stop making urine all together which can lead to a life threatening state.

The kidneys can be evaluated through multiple diagnostics tests. Routine blood work such a complete blood count, and chemistry profile can be done to check for high white blood cell count, anemia, elevated kidney enzymes (BUN and Creatinine), phosphorus levels and electrolytes should be assessed. Other tests such as x-rays and ultrasound can also show structural changes in the kidneys as well as stones or areas with loss of blood supply. In severe cases a biopsy may be necessary. The urine should also be assessed through a urinalysis to look for crystals, bacteria, and the specific gravity as well as a culture to find any infections.

Treatment of acute kidney failure usually includes intravenous fluid therapy. By hydrating the body and diluting out the toxins we hope to give the kidneys time to recover. Antibiotic therapy may also be instituted if there are clinical signs of infection. Sometimes drugs such as furosemide (Lasix) or mannitol are given to help increase urine production and output. Patients are also put in gastrointestinal protectants such a Pepcid or Prilosec to avoid GI ulceration. If the patient refuses to eat sometimes a feeding tube is also required. In extreme cases dialysis can be instituted as well. Our hospital does not offer dialysis but transfer to a hospital (Animal Medical Center in New York City) can be arranged.

Acute kidney failure can be a dynamic disease process. It is important to monitor for signs of GI ulceration, systemic hypertension and to monitor the electrolyte levels. GI

ulceration can lead to decreased appetite, vomiting, weight loss, and in extreme cases perforation of ulcers or acute blood loss. Systemic hypertension if left untreated can cause permanent damage to the retinas in the eyes and affect vision as well as leave permanent damage to the kidneys. Electrolytes changes such as high levels of potassium, often associated with acute kidney failure, can lead to life threatening changes to the heart. Patients with acute kidney failure should be monitored 24 hours a day to give the proper medical response to these many changes.

The prognosis of acute kidney failure is poor to guarded. Response to therapy is key to gauging how your pet will do. If your pet has decreased urine production this lends a more guarded prognosis. It is also possible that your pet may recover but have permanent kidney damage and need chronic care such as a special diet or subcutaneous fluids. Acute kidney failure is a life threatening condition that needs immediate aggressive management to give your pet a chance at recovery.