

Mountain View Animal Hospital
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RENAL (KIDNEY) FAILURE

Your animal's kidneys filter and remove waste materials from the blood stream. Among the more important of these are the waste products that result when protein is metabolized. Renal failure is an inability of the kidneys to perform these functions sufficiently to prevent the development of clinical signs. Acute renal failure is often a life-threatening disorder. Chronic renal failure is one of the most common medical problems seen in older dogs and cats, and is a leading cause of death in these pets.

ACUTE RENAL FAILURE

Acute renal failure is a rapid decline in kidney function caused by many diverse processes and diseases. It is treated by removing the cause of the decline, if possible, and supporting the animal's needs with fluids, special nutritional products, and, sometimes, medications.

Causes

There are many causes of renal failure including blood loss, shock, surgical stress, trauma, severe dehydration, poisons, drugs, and conditions that obstruct urine flow.

Diagnosis

A physical examination often helps the veterinarian diagnose acute renal failure. Bladder stones that obstruct urine flow can often be palpated (to examine by touching), as can an enlarged bladder. Laboratory studies include blood tests and a urinalysis to determine how well the kidneys are filtering and removing wastes from the blood. X-rays of the abdomen and biopsies of the kidney help show causes of acute renal failure.

Treatment

Therapy is tailored to the individual patient but usually includes hospitalization, therapy to remove accumulated wastes from the blood stream and to help prevent them from accumulating, and therapy to remove the cause. Many patients recover completely if fluid therapy is instituted and the underlying abnormality treated.

Acute renal failure arising from diseases of the kidney can be treated with medical therapy and dialysis, however, dialysis equipment is rarely found in veterinary hospitals. Medical therapy includes restoring fluid, electrolyte, and acid-base balance. Of primary concern is the reestablishment of urine flow. Fluid therapy drugs called diuretics help accomplish this goal. Other medications may be necessary to help control vomiting, diarrhea, and high blood pressure.

Once your animal returns home, it will need special attention and care. It is important that you avoid all stress and provide continuous access to fresh, clean water. Follow instructions carefully if your veterinarian prescribes medication for your pet. **It is very important that you keep all appointments for follow-up examinations and laboratory tests.** Even though your pet may recover from acute renal failure in a week or two, the lesions in the kidneys may take months to heal.

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CHRONIC RENAL FAILURE

The kidney normally produces a hormone that regulates the production of red blood cells. In chronic renal failure, the production of this hormone is impaired, so many renal failure patients become anemic. The kidneys also regulate the volume and composition of your pet's body fluids. Renal failure often produces severe alterations in an animal's body fluids. One result of this is high blood pressure.

Once chronic renal failure develops, it cannot be reversed and is almost always progressive. Any measure, therefore, that helps prevent the disease, delays the age of occurrence, or slows progression of the disease will help your pet live longer. Chronic renal failure develops over several months or years, so the changes you see may be subtle. Generally, the syndrome begins with a pet gradually drinking more water and urinating more.

Causes

Chronic renal failure has many different causes including inherited defects, infections, toxic substances, nutritional factors and immune system defects.

Diagnosis

The veterinarian will order blood tests that can detect urinary wastes in the blood stream as well as fluid, electrolyte, and acid-base imbalances. Other useful tests include urinalysis, ultrasound, and blood pressure measurement. Blood pressure measurement is warranted because up to 75% of dogs and cats with renal disease have high blood pressure.

Treatment

The veterinarian will determine the proper treatment for your pet, which may include hospitalization as well as special dietary products and medications. Dehydration and acid-base and electrolyte imbalances are treated with fluid therapy. Medications help control vomiting, diarrhea, anemia, and high blood pressure.

Once your pet returns home, it needs special attention and care. You should: Always provide access to fresh, clean water. Avoid all stress. Give all medications. Return to the hospital for all follow-up appointments. Report any abnormalities to your veterinarian. Your veterinarian may instruct you on how to give fluids underneath the skin (subcutaneous) if that is something that you would feel comfortable with...otherwise, your pet would need to come back to the hospital on a regular basis so that we could give the fluids.

The veterinarian will also recommend a well-balanced special food for your pet with reduced amounts of protein, phosphorus, and sodium. The goal of proper diet is to eliminate waste materials in the blood, and reduce the workload on the kidneys while supplying the nutritional needs of the pet.

