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Feline Lower Urinary Tract Disease (FLUTD)

FLUTD is a group of diseases that affect the lower urinary tract (bladder and urethra) of cats. This disease is also known as Feline Urologic Syndrome (FUS). Both male and female cats get FLUTD.

SIGNS

Most cats with FLUTD exhibit blood in the urine and discomfort in urinating. The discomfort is usually mild but can become much worse if it is not treated. The cat often urinates much more frequently than normal, usually with the passage of only a few drops of urine at once. This disease will cause many cats to urinate in places other than the litter box, often on hard surfaces such as tile floors, countertops, sinks, and bathtubs. They do this because it hurts them to urinate and should not be punished.

Male cats have a very small urethra and are susceptible to developing an obstruction from the crystals, mucus and blood being passed. This obstruction prevents elimination of urine from the bladder. If the obstruction is not relieved within 48 hours, most cats will die from kidney failure and the retention of toxins that were not removed by the kidneys. Even when the obstruction is removed, swelling and scarring of the urethra and damage to the bladder from stretching, can lead to complications such as incontinence and recurring obstructions. Because the urethra is relatively larger in the female cat, the emergency posed by complete obstruction is almost always limited to male cats.

CAUSES

There is no one cause of FLUTD in cats. One of the most common factors is the production of tiny sand-like crystals in the urine, although some cats actually develop solid bladder stones. However there are more than one type of crystal, and no one knows why some cats develop them and others do not. Some research has pointed to viral infections damaging the bladder, but it has been inconclusive. Occasionally cats have infectious cystitis (bladder infection), while others just have recurrent blood in the urine with no apparent cause. This last group is the most frustrating, as they will often have on and off urinary problems their entire life.

More than causes, we recognize risk factors. Cats that are overweight and sedentary have an increased risk. This probably relates to factors such as water intake, urine volume and litterbox habits. For the same reasons, "stress" can precipitate a urinary problem. Early neutering of male cats has been proposed but disproved as a risk factor. Diet can be a significant risk factor. Cat foods with high levels of magnesium and phosphorus can increase the risk of developing crystals in the urine. Also dry cat foods are more associated with urinary

problems than canned, and this is likely primarily due to the increased volume of water consumed by cats eating canned food.

DIAGNOSIS :

The most important test in diagnosing FLUTD is a urinalysis. This enables us to assess for the presence and type of crystal (there are more than one type possible) and for infection. Getting a urine sample from cats is a challenge, and some cats we end up keeping in the hospital a day or two until the bladder fills enough. Depending on the individual case, we may also want to culture the urine or x-ray the abdomen.

TREATMENT:

If neither a bladder stone nor urethral obstruction is present, proper medication (antibiotics and anti-inflammatories) will generally relieve the discomfort. A special diet can be used to dissolve any bladder crystals and to prevent recurrence.

If the cat has an obstruction of the urethra, a catheter is passed into the bladder while he is under a short acting anesthetic. The catheter is frequently left in place for about 24 hours. The cat is discharged from the hospital when it appears unlikely that obstruction will reoccur, usually 1-2 days later. If he is experiencing kidney failure and toxemia, intravenous fluids and additional hospitalization are needed.

PREVENTION

DIET: Although we do not believe that any one type of commercial cat food causes FLUTD, we know that certain things can be done to the food to minimize a recurrence. However, dietary prevention depends upon the type of crystal present. If struvite crystals are present, they can be dissolved in acidic urine with a low magnesium diet. Calcium oxalate crystals however are more likely to occur in acidified urine. Therefore, if at all possible, the crystals in the urine should be analyzed for their composition. This is the most important step in preventing future problems.

FLUIDS: Overall, drinking enough water to keep the urine dilute reduces the chances of any bladder problem recurring. Cats evolved as a desert animal and their natural tendency to NOT drink much water is likely one reason urinary problems are so common.

Ways to Encourage Water Intake

- Increasing water consumption by feeding increased amounts of canned food or feeding a dry diet formulated with additional salt. It has been shown that salt significantly increases water intake and urine production. Salt has not been shown to contribute to hypertension or renal disease in healthy cats.
- Multiple small meals may help - water intake increases by increasing meal frequency.
- It is important to provide easy access to fresh water at all times. Cats are nocturnal and may prefer to drink in the evenings
- Cats have sensitive whiskers and many prefer never to have their whiskers touch the edges of the bowl. Therefore the ideal water bowl has a wide mouth and should be kept full at all times.

- A variety of water types (Brita, distilled, bottled, warm tap water, cold tap water) can be offered.
- Do not sweeten the water as cats lack sweet taster receptors (they don't have a sweet tooth). Flavoring the water or providing ice cubes flavored by tuna or clam juice may help encourage water consumption.
- Some cats prefer a source of running water and water fountains are available for cats.
- It is important to keep food and water bowls away from the litter box area. The water bowl must be clean (cats have a very keen sense of smell are easily turned off by odours on the edge of the bowl).
- Some cats prefer a clear glass bowl - others stainless steel or ceramic. Some cats prefer not to share their bowl - especially with dogs.