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Prevalence Of Feline Lower Urinary Disease (FLUTD) On Cats At Animal Health Centers (Puskeswan) Gorontalo City Period April – Juny 2024

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Abstract

The aim of this research is to measure the incidence rate (prevalence)of FLUTD cases in cats seeking treatment at the Gorontalo City Animal Health Center (Puskeswan). Feline Lower Urinary Tract Disease (FLUTD) is a disease that often occurs in cats, one of which is coused by the presence of crystals in the urinary bladder. The samples examined were cats that had FLUTD and sought treatment at the Gorontalo City Health Center from July to September 2024. The examination method was to examine the patient's ambulatory. The patient's ambulator is the first record when the patient is handled. Cat patients who come have an ananemsa byasking the animal owner several questions, which are then recorded in the ambulatory. After the patient's analysis is carried out, a physical examination is carried out by measuring body temperature, listening to the respiratory tract using a stethoscope, which aims to find out whether only the digestive system is affected or whether the respiratory system has been attacked. The cat's urinary bladder is palpated to see if it is hardened and pressure is tried to produce urine. If urine does not come out, it is necessary to install a catheter. The mouth is then opened to determine the condition of the inside of the mouth, whether is has experienced systemic poisoning due to toxins or body waste that cannot be excreted through urine. Cats that have been poisoned will have a purplish color on their oral mucosa. The prevalence of FLUTD in cats receiving treatment at the Gorontalo City Health Center was calculated by dividing patients who showed FLUTD by dividing the number of patients treated during July to September 2024 by one hundred percent. The prevalence of FLUTD in cats seeking treatment from January to March at the Gorontalo City Health Center was 17,70%.

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Keyword: Prevalence, Urinary infections, Cats, Gorontalo.

INTRODUCTION

Feline Lower Urinary Tract Disease (FLUTD) or Feline Urologic Syndrome (FUS) is a disease that affects the lower urinary tract of cats, such as the bladder and urethra. FLUTD can cause a variety of health problems, such as urinary tract infections, bladder stone formation, bladder inflammation, and urethral obstruction.

This urinary disorder can be a blockage in the urethrae, the formation of urolites, or cystitis. There are several causes of FLUTD. The formation of urolytes in the lower urinary tract, which causes a blockage. Urolytes are an accumulation of minerals, the most commonly found are calcium oxalate and struvit (magnesium ammonium phosphate). So to see this blockage, sometimes an X-ray or ultrasound examination is needed. Other causes are inflammation of the urinary bladder (cystitis) or the presence of infections in the urinary tract by bacteria, fungi or parasites. Some risk factors for FLUTD include feed and age. Gender also affects risk factors where male cats have a higher potential for FLUTD than female cats. The results of the study by Dinallo et al. (2022) stated that FLUTD cases in male cats were 97.3% compared to FLUTD in female cats which was only 2.63%.

FLUTD can have a long-term impact on the health of cats. Cats can experience certain complications, or even experience a decrease in quality of life if left untreated, FLUTD can lead to serious complications such as kidney damage or recurrent urinary tract infections. In the severe stage, usually the cat will vomit, be weak, unable to walk, breathe begins to gasp, the mucosa becomes purplish and usually after that will die. FLUTD treatment requires a lot of money. In addition to the installation of a catheter, food therapy also requires a large cost because the price of special food for urinary cases is expensive. Given the importance of this disease, it is necessary to conduct a survey on the incidence rate of FLUTD disease so that efficient prevention efforts can be anticipated.

METHOD

The samples examined were cats that experienced FLUTD and went to the Gorontalo City Health Center from July to September 2024. The examination method is by conducting an ambulatory examination of the patient. The patient's ambulator is the first record when the patient is treated.

Cat patients who come are carried out by anaemsa by asking several questions to the animal owner, which are then recorded in the ambulator. After anaemsa, the patient is then

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carried out a physical examination by measuring body temperature, listening to the respiratory tract using a microscope, which aims to find out whether only the digestive system is attacked or has attacked the respiratory system. The cat's urinary vesica on palpation is hardened and pressure is tried to be applied to remove the urine. If the urine does not come out, it is necessary to have a catheter inserted. The mouth is then opened to find out the condition of the inner mouth whether it has experienced systemic poisoning due to toxins or body waste that cannot be excreted through urine. Cats that have been poisoned will have a purplish color on their oral mucosa. The prevalence of FLUTD in cats treated at the Gorontalo City Health Center is calculated by the way patients who show FLUTD divided by the number of patients treated during July to September 2024 multiplied by one hundred percent.

RESULTS AND DISCUSSION

Results

Table 1. Patients at the Gorontalo City Health Center in July - September 2024.

No	Cases of the disease	Moon			Quantity/tail
		July	August	September	
1	FLUTD	7	5	5	17
2	Other diseases	24	32	23	79
	Quantity	31	37	31	99
	Prevalensi FLUTD	*22,58%*	*13,51%*	*16,12%*	*17,17%*

From the results of the ambulatory examination of patients who received treatment at the Gorontalo City Health Center from July to September 2024, it is known that the total number of patients treated from July to September amounted to 96 cats, and those who experienced FLUTD amounted to 17 cats. So that the prevalence of FLUTD in cats treated at the Gorontalo City Health Center is 17.70%. The complete data related to the prevalence of FLUTD in cats treated at the Gorontalo City Health Center is presented in table 1.

DISCUSSION

Feline Lower Urinary Tract Disease (FLUTD) is a disease that often occurs in cats, one of which is caused by crystals in the bladder. In general, risk factors for FLUTD include several causes, including etiological factors, upbringing, way of life of cats, infection, age, sex, genetics, water, and food sources (Lund et al., 2016; Gomes et al., 2018). Also many studies have found that stress can play a role in the development of FLUTD (Buffington, 2011; Defauw et al., 2011; Lund et al.,

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2016), and some races are thought to have predisposing factors for urolith formation (Hunprasit et al., 2019). Based on data from Nururrozi et al. (2020), the highest percentage of FLUTD incidence in Indonesia is caused by Feline Idiopathic Cystitis (FIC) with a percentage of 56.1%, followed by urinary tract infection (UTI) of 15.3%, urolithiasis of 13%, urethral plugs of 4.9%, and neoplasia of 0.4%. In addition, overweight has been shown to be significantly associated with the incidence of FLUTD (Buffington, 2011; Lund et al., 2016). Another causative factor is the presence of urinary tract infections from proteolytic bacteria that produce urease-producing protease enzymes that cause the formation of struvite (Ahmed et al., 2018).



Figure 1. Cats with urinary disorder (FLUTD) are usually characterized by bloody urine (a). Catheter insertion in a cat patient with FLUTD (b). (source: patients at the Gorontalo City Health Center). *Doc. Personal*

Cases of FLUTD can often be recognized when the cat shows clinical symptoms including hematuria, pollakiuria, stranguria, periuria, dysuria and enlarged VU. In the early stages such clinical symptoms are often not recognized by the owner, so the disorder will become more severe. The occurrence of urinary disorders in cats shows clinical symptoms, including urinary stasis and hematuria. Predisposing factors for the occurrence of urinary stasis include gender, adult age, and dry feeding with limited drinking water for a long time (Lekcharoensuk et al., 2001).

Therapy is carried out with the insertion of a catheter. Previously, cats were anesthetized using atropine sulphates (dose 0.02 – 0.04 mg) mixed with acepromazine (dose 0.025ml/kg BB ®Castran), as well as ketamine (dose 10 mg/kg BB). After the cat is anaesthetized, prepare a 0.1 urine catheter that has been applied with antibiotic ointment so that it is slippery and easily enters the urethra. The cat's preputium is pulled so that the penis can come out perfectly. Then a catheter is inserted slowly, until the entire catheter can enter, then a syringe is inserted at the end of the catheter and the urine is sucked in the VU. Problems or disorders of the urinary system

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in cats in Indonesia are often encountered by veterinarians who practice pets.

CONCLUSION

The prevalence of FLUTD in cats treated from July to September at the Gorontalo City Health Center was 17.70%.

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