

UDC 59.597
IRSTI 34.33.27

ПЕТРОПАВЛ ҚАЛАСЫ ТҰРҒЫНДАРЫНЫҢ ҮЙІНДЕ ҰСТАЛАТЫН МЫСЫҚТАРДЫҢ ЖҰҚПАЛЫ ЕМЕС АУРУЛАРЫ

Панченко В.Ю.¹, Жадан К.С.¹

¹М. Қозыбаев атындағы СҚУ, Петропавл, Қазақстан

Аңдатпа

Үй жануарының серігі ретінде тұрғындар көбінесе (*Felis silvestris catus*) мысықтарын алады. Соңғы уақытта мысықтардың танымалдығы екі есе өсті. Шамамен 200-ге жуық тұқым өсірілді. Мысықтар - үй жануарлары, түрлі көрмелер мен жарыстардың қатысушылары. Алайда, мысықтардың денсаулығына байланысты проблемалар жиі болуы мүмкін. Мысықтарға жануарлардың жағдайы нашарлайтын жұқпалы емес аурулар, сондай-ақ жұқпалы аурулар әсер етеді, ал көптеген аурулар адамның өзіне қауіп төндіреді (антропозооноздар). 2017-2019 жылдар аралығында ауру топтарының анықталған тізіміне қатысты үйде ұсталатын (*Felis silvestris catus*) мысықтарының ауру жиілігінің талдауы өтті. Ең көп үлес, жұқпалы ауруларға тиесілі (өтініштердің жалпы санының 54%), жұқпалы емес аурулар 41,7% - ды құрайды, қалған бөлігі-профилактикалық өтініштер (4,3%). Жұқпалы емес аурулар туа біткен және жүре пайда болған, ішкі және сыртқы болуы мүмкін. Мысықтардың арасындағы жұқпалы емес аурулардың жиі кездесуіне байланысты: бірінші орында жарақаттармен жүгіну - жалпы өтініштердің 19%, екінші орында - шығару жүйесінің аурулары (17,3%) және ас қорыту жүйесінің аурулары (17,2%), үшінші орында - тыныс алу жүйесінің аурулары (15,6%), одан әрі жүрек-тамыр жүйесінің аурулары (14%), жүйке жүйесінің аурулары (13,6%). Мысықтардың қатерлі ісік аурулары үлесі 3,3% құрайды. Кейбір ауру топтары үшін жас ерекшеліктері, мысық тұқымдары "осал" болып табылады, жиі аурудың өтуін ағзаның физиологиялық, генетикалық ерекшеліктеріне байланысты анықтайды. Аурудың алдын - алу шараларын сақтаудың маңыздылығы (егу, мерзімді медициналық тексерулер), үй жануарларының салауатты өмір салты, дұрыс тамақтану-мысық иелері үшін негізгі ұсыныстар.

Түйінді сөздер: мысық ауруының құрылымы, аурудың жиілігі мен динамикасы, жұқпалы емес аурулар, аурудың себептерін зерттейтін ілім (этиологиясы), тарихы, диагностика, жас ерекшеліктері, мысық тұқымдары, алдын-алу шаралары.

НЕЗАРАЗНЫЕ ЗАБОЛЕВАНИЯ КОШЕК, НАХОДЯЩИХСЯ НА ДОМАШНЕМ СОДЕРЖАНИИ У НАСЕЛЕНИЯ ГОРОДА ПЕТРОПАВЛОВСКА

Панченко В.Ю.¹, Жадан К.С.¹

¹СҚУ им. М. Козыбаева, Петропавловск, Казахстан

Аннотация

Население всё чаще в качестве домашних животных-компаньонов заводит кошек (*Felis silvestris catus*). Популярность кошек за последнее время возросла почти в два раза. Выведено около 200 пород. Кошки - домашние питомцы, участники разных выставок и соревнований. Однако у кошек довольно часто могут быть проблемы со здоровьем. Кошки поражаются незаразными болезнями, при которых

ухудшатся состояние животного, а также заразными болезнями, при этом многие болезни представляют опасность и для самого человека (антропозоонозы). Проведен анализ заболеваемости *Felis silvestris catus*, находящихся на домашнем содержании, относительно выявляемого перечня групп болезней за период 2017-2019гг. Наибольшая доля приходится на заразные заболевания (54% от общего числа обращений), незаразные заболевания составляют 41,7%, остальная часть - профилактические обращения (4,3%). Незаразные заболевания могут быть врожденными и приобретенными, а также внутренними и наружными. Среди незаразных заболеваний кошек по частоте встречаемости на первом месте обращения с травмами - 19% от общего числа обращений, на втором - заболевания выделительной системы (17,3%) и заболевания пищеварительной системы (17,2%), на третьем - заболевания органов дыхательной системы (15,6%), далее заболевания сердечнососудистой системы (14%), заболевания нервной системы (13,6%). На долю онкологических заболеваний кошек приходится 3,3 %. Характеристики возраста, породы кошек для некоторых групп заболеваний являются «уязвимыми», часто определяют тяжесть заболевания, что связано с физиологическими, генетическими особенностями организма. Важность соблюдения мер профилактики заболеваний (вакцинации, периодические врачебные осмотры), здоровый образ жизни питомца, правильное питание - основные рекомендации для владельцев кошек.

Ключевые слова: структура заболеваемости кошек, частота и динамика заболеваемости, незаразные болезни, этиология, анамнез, диагностика, возрастные особенности, порода кошек, профилактика.

NON- COMMUNICABLE DISEASES OF DOMESTIC CATS OF POPULATION IN PETROPAVLOVSK

Panchenko V.¹, Zhadan K.¹

¹NKU named after M. Kozybayev, Petropavlovsk, Kazakhstan

Abstract

The population is increasingly getting cats (*Felis silvestris catus*) as companion pets. The popularity of cats has almost doubled in recent years. About 200 breeds have been bred. Cats are pets, participants in various exhibitions and competitions. However, it is quite common for cats to have health problems. Cats are affected by non-communicable diseases, in which the condition of the animal will worsen, as well as communicable diseases, while many diseases pose a danger to the person himself (anthropozoonoses). An analysis of the incidence of *Felis silvestris catus* kept at home was carried out with respect to the identified list of disease groups for the period 2017-2019. The largest share (54% of the total number of calls) are communicable diseases, the share of non-communicable diseases is 41.7%, the rest is preventive treatments (4.3%). Non-communicable diseases can be congenital and acquired, as well as internal and external. Among non-communicable diseases of cats in terms of frequency of occurrence, the most common diseases are various injuries (19% of the total number of visits), in second place are diseases of the excretory system (17.3%) and diseases are of the digestive system (17.2%), in third place diseases of the respiratory system (15.6%), then diseases of the cardiovascular system (14%), diseases of the nervous system (13.6%). The share of oncological diseases of cats is 3.3%. Characteristics of age, breeds of cats for some groups of diseases are "vulnerable", often determine the severity of the disease, which is associated with the physiological, genetic characteristics of the organism. The importance of compliance with disease prevention measures (vaccinations, periodic medical

examinations), a healthy pet lifestyle, proper nutrition are the main recommendations for cat owners.

Keywords: morbidity structure, frequency and dynamics of morbidity, non-communicable diseases, etiology, anamnesis, diagnosis, age characteristics, breed of cats, prevention.

Introduction

To date, the popularity of cats as pets has almost doubled all over the world. New breeds and varieties are bred by selection. They are shown at exhibitions, various competitions are held. Statistics convincingly proves that the number of cats in the world is increasing by 4-5% annually, according to the most conservative estimates. In terms of their popularity, they begin to surpass dogs, especially in cities [1, p.21]. New diseases arise because the emergence of variety of breeds and the growth of populations. Some diseases appear at the genetic level, while others arise due to various infections and improper care of the animal.

In our study, special attention is paid to non-communicable diseases of cats, both internal and external. It turned out to be difficult to trace the etiology of this group of diseases based on a congenital or acquired disease, due to the lack of data in the primary anamnesis.

Non-infectious diseases are the result of improper care, all kinds of injuries and insufficient activity of the pets.

Research methods

The objects of research are domestic cats of the population of the city of Petropavlovsk. The studies were carried out based on data of several city veterinary clinics.

During the initial examination, general information is collected with the indication of such information as name, address of the owner of the animal, cat's name, sex, age, breed, body mass, diseases.

When contacting a veterinary clinic, an initial examination of the animal is carried out, during which an anamnesis is collected, which helps to establish the diagnosis and treatment of the animal.

When collecting an anamnesis, the following data are collected:

- How long has the animal been vaccinated?
- Conditions of detention (regularity of feeding, physical activity, where the dog or cat lives).
- Whether sterilization / castration has been performed.
- A sharp change in living conditions (change of diet, moving, stress).
- How long ago did the symptoms of the disease appear?
- The nature of the changes, the intensity, the reasons of problems.
- What diseases were previously diagnosed in the animal, how was the treatment, how successful.

Several signs have been identified by which a healthy cat can be identified [2, p.118-120]:

- The cat is quite active, turns its ears and changes its look at various objects.
- The cat looks well-groomed.
- The cat has eyes without traces of discharge in the corners.
- Skin without any signs of roughness, elastic, intact, clean ears.
- The animal should be moderately well-fed, not too skinny or too fat.
- Tongue and gums are pale pink, teeth are white and clean.

- The urine and feces of the animal pass normally, without tension, and look normal (do not have an unusual color, the feces should not be liquid).
- The cat's breathing is light, without coughing, puffing or twitching of the chest.
- The animal has a normal pulse and temperature: 120 beats per minute and 38.5°C (not counting the Sphynx breed, their temperature can be up to 39°C).

The detection of a disease in an animal can be not only when taken with specific health complaints in a cat, but also when taken prophylactically. Early diagnosis allows in most cases to achieve better results in the treatment of the animal.

Research results

During the research period from 2017 to 2019 3,449 visits of cat owners were recorded in total. 150 visits are preventive (examination, clipping, castration, sterilization). The rest of the visits are related to diseases, of which 1439 are non-communicable diseases.

In the statistics of morbidity, the group of non-communicable diseases of cats does not take the first place, giving way to infectious diseases. The largest share falls on infectious diseases, which is 54% of the total number of visits, non-communicable diseases account for 41.7%, the rest is preventive treatment - 4.3%.

Non-communicable diseases are divided into several groups. They can be congenital and acquired. The most difficult thing to determine is a congenital disease, since sometimes its symptoms coincide with the acquired one and require additional research, sometimes genetic. Veterinary clinics of the city do not have this diagnostic equipment; therefore, it is difficult to specify the etiology of certain diseases. Some symptoms may not appear for many months, after which the disease is detected too late and can be fatal.

Among non-communicable diseases, diseases of the respiratory, digestive, nervous systems, as well as the organs of the cardiovascular and excretory systems are noted (table 1). In addition to these diseases, various wounds, dislocations, fractures, bruises, as well as oncological diseases were relatively common.

Thus, during the study period, among non-communicable diseases, according to the frequency of occurrence, the proportion of visits with injuries (bruises, fractures, dislocations, etc.) is 19% of the total number of visits. The share of diseases of the excretory system is 17.3%, the share of diseases of the digestive system is 17.2%. Further among the non-communicable diseases of cats in terms of frequency of occurrence are diseases of the respiratory system - 15.6%. Then there are diseases of the cardiovascular system, which account for 14%. Diseases of the nervous system account for 13.6%. The share of oncological diseases of cats is 3.3%.

Table 1 Structure of non-communicable diseases found in cats

Group of diseases	Year			
	2017	2018	2019	total
respiratory system	71	76	83	230
digestive system	78	82	87	247
cardiovascular system	64	67	70	201
nervous system	61	66	69	196
excretory system	78	84	87	249
trauma	86	89	93	268
oncology	12	16	20	48

Among non-communicable diseases, diseases of the excretory system occupy a special place. Today, the industrial production of cat food is developing at a rapid pace. Not all foods are good for animals. Many of them contain various flavor enhancers, food

additives and colorants, which in turn negatively affect the health of cats. The urinary system is especially affected. In the renal canals, urethra, as well as in the bladder, various oxalates accumulate and are deposited, which subsequently turn into stones, get stuck in them and prevent the outflow of urine, and also cause severe pain when urinating.

Also, in addition to food, improper care affects the state of the excretory system of cats. Overdosing of various medications can cause kidney disease. Also, with insufficient treatment of the animal, various parasites may appear in it, which, by releasing the products of their vital activity, can provoke the appearance of inflammation of the organs of the excretory system.

Among the requests, 249 diseases of the excretory system were identified (table 2). Among them, diseases such as nephritis (17.7%), pyelonephritis (14.1%), cystitis (20.5%), urolithiasis (22.5%), urethritis (14.8%), and nephrosis (10.4%).

Table 2 Excretory system diseases

Disease	Year							
	2017		2018		2019		total	
	sum	%	sum	%	sum	%	sum	%
nephritis	12	27,3	15	34,1	17	38,6	44	17,7
pyelonephritis	11	31,4	11	31,4	13	37,2	35	14,1
cystitis	14	27,5	17	33,3	20	39,2	51	20,5
urolithiasis disease	16	28,6	18	32,2	22	39,2	56	22,5
urethritis	9	24,3	13	35,2	15	40,5	37	14,8
nephrosis	7	26,9	8	30,8	11	42,3	26	10,4

Some cat breeds are prone to urinary tract diseases from birth. The appearance of these diseases in them is associated with a genetic predisposition. The most predisposed cats are short-haired and long-haired breeds. These are such breeds as Persians, Berman, Siamese, Cartesian cats, Maine Coons. The age of the cat is also of great importance, older cats are more likely to develop these diseases.

This can be explained by the fact that many diseases of the excretory system are cumulative. With age, they are gradually deposited in the body of the animal, without manifesting themselves, and only after a while do symptoms appear. Also, diseases of the excretory system most often occur in spayed animals. Urination in such cats occurs less frequently, due to which the aggregation of crystals occurs, then deposits may appear, which leads to the appearance of diseases of the urinary system.

The second most common non-communicable diseases in cats are diseases of the digestive system. Today, the food of cats directly depends on the owners. In connection with this, there is an increase in the number of diseases of the digestive system.

Also, the occurrence of these diseases can be facilitated by such factors as viruses and bacteria, the ingestion of chemical or foreign bodies, systemic diseases of the animal (renal failure, diabetes, urolithiasis), allergic reactions, excessive drug delivery to the animal, various neoplasms, severe stress.

In the period over 3 years, 247 diseases of the digestive system were detected (table 3). Among them, diseases such as pancreatitis (26.3%), gastritis (28.7%), gastric ulcer (22.2%), peritonitis (5.6%), enteritis (17%) were identified.

Table 3 Digestive system diseases

Disease	Year							
	2017		2018		2019		total	
	sum	%	sum	%	sum	%	sum	%
pancreatitis	21	27	22	26,8	22	25,2	65	26,3
gastritis	23	29,4	24	29,2	24	27,5	71	28,7
stomach ulcer	18	23	18	21,9	19	21,8	55	22,2
peritonitis	4	5,1	5	6	5	6	14	5,6
enteritis	12	15,3	13	15,8	17	19,5	42	17

Basically, diseases of the digestive system are the result of poor nutrition. Feeding cats with fatty, fried, salty food leads to the occurrence of diseases of this group. As with diseases of the urinary system, some cat breeds have a genetic predisposition to diseases of the digestive system. These are mainly longhaired cats, Persians, Maine Coons, as well as Siamese cats. Also, a number of these diseases are caused by viruses and bacteria, and in some cases, they are the result of diseases of the internal organs.

After diseases of the excretory and digestive systems, diseases of the respiratory system are in third place in terms of prevalence. Basically, young individuals are susceptible to these diseases. In the first years of life, cats are susceptible to diseases such as bronchopneumonia and bronchitis. Since during this period cats have weak immunity, and many viruses and bacteria freely enter the animal's body. If these diseases appear in older individuals, then they manifest themselves as complications. The most common diseases of the respiratory system in cats are rhinitis, laryngitis, bronchitis, pneumonia, pleurisy.

In the period from 2017 to 2019 diagnosed 230 diseases of the respiratory system of cats (table 4). From the group of diseases of the respiratory system, such diseases as bronchitis (22.17%), rhinitis 21.7%), laryngitis (20.4%), pneumonia (17.3%), as well as pleurisy (16.9%) were identified. In isolated cases, croupous pneumonia (0.4%), emphysema (0.4%), as well as bronchopneumonia (0.4%) were observed.

Diseases of the respiratory system generally have common factors of occurrence. These are factors such as hypothermia, viruses and bacteria, frequent bathing, feeding cats with cold food, a sharp change in climate, and these diseases can also appear as a complication of a previously suffered cold or any viral disease. Diseases of the respiratory system have similar symptoms, such as coughing, sneezing, rapid breathing, wheezing when inhaling or exhaling, nasal flow, loss of appetite, sudden weight loss, and discoloration of the mucous membranes. These diseases are mainly susceptible to cats in the early stages of life, as well as elderly individuals.

Table 4 Respiratory system diseases

Disease	Average age	Year							
		2017		2018		2019		total	
		sum	%	sum	%	sum	%	sum	%
bronchitis	4.5 months – 5 years, 10 years	15	21,1	17	22,3	19	22,9	51	22,17
rhinitis	5 months – 3 years	16	22,5	16	21	18	21,7	50	21,7
laryngitis	4 months – 4 years, 11 years	14	19,7	16	21	17	20,5	47	20,4
pneumonia	8 months –	13	18,3	12	15,8	15	18	40	17,3

	6 years								
pleurisy	6 months – 3 years, 12 years	12	16,9	14	18,4	13	15,6	39	16,9
croupous pneumonia	8 years	-	-	1	1,3	-	-	1	0,4
emphysema	10 years	-	-	-	-	1	1,2	1	0,4
bronchopne- umonia	12 years old	1	1,4	-	-	-	-	1	0,4

The average age of cats exposed to diseases of the respiratory system has been established, which ranges from 5 months to 3-4 years, and there are also individuals whose age is 10-12 years. This is since young, as well as elderly individuals, have weak immunity, and many viruses and bacteria can enter the animal's body. To prevent these diseases, the animal must be tempered, strengthen its immunity, closely monitor the quality of nutrition, and it is also necessary to vaccinate annually for preventive purposes.

Conclusion

Non-communicable diseases of cats are diseases that are not transmitted from an animal to humans or other animals. Despite this, this group of diseases is an indicator of the well-being of a certain population of domestic cats.

The main cause of non-communicable diseases is improper animal care, which was confirmed in our study.

Improper nutrition causes diseases of the urinary, respiratory, cardiovascular, and digestive systems in cats.

The passive lifestyle of the animal leads to problems with the cardiovascular system. Leading a passive lifestyle, many cats, especially spayed ones, gain excess weight, which negatively affects the respiratory, digestive, and cardiovascular systems.

Also, viruses and bacteria can be the cause of many non-communicable diseases of cats, therefore it is necessary to carry out annual vaccinations of the animal in order to prevent these diseases.

Measures for the prevention of cat diseases are complete feeding, the quality of food and water, the optimal indoor climate, the mode of physical activity, the rational use of household chemicals, periodic preventive examinations by the veterinarian, if any deviations in behavior or nutrition are found, a clinical examination of the animal is necessary.

References

1. Kuznetsov G.S., Protasov A.I. Veterinary Handbook. - L.: Kolos, 1999. - 21 p.
2. Gaskell K.J. Cats diseases. – M.: Akvarium, 2011. – 118-120 p.