scrapings are moved monthly in the dynamics of the same places from which they were originally taken. It is important to assess not only the fact of the presence of *Demodex canis*, but also their number and stage of development. Microscopy - with a semi-closed diaphragm, because in bright light *Demodex canis is* almost invisible. The final diagnosis is made only after the detection of ticks in deep scrapings of the skin. It is also necessary to exclude diseases with similar symptoms (dermatophytosis, atopy, pyoderma, seborrhea, etc.). It is also important to identify the causes of the disease, ie. Factors that contribute to the weakening of the immune system - disorders of the normal physiology of the skin, stress, endocrine diseases (hypothyroidism, diabetes, hyperadenocorticism), viral and bacterial infections.

Treatment: The dog should receive the medication for at least one month after clinical recovery and the absence of ticks in the skin scrapings. Most often, the course of treatment is 2 - 4 months, provided control of the causes of reduced immunity. In some situations, when the dog is forced to receive drugs that adversely affect the immune system, such as chemotherapy of malignancies or continuous treatment with hormonal drugs of some autoimmune diseases - the use of demodectic mange will be much longer and will be carried out in parallel with these drugs throughout treatment. them, perhaps for life. With localized demodicosis in dogs up to one year, you can not carry out any treatment for at least 4 - 6 weeks, and in case of spread of lesions - to begin therapy.

Prevention: Not recommended for use in breeding dogs that have relapsed with generalized demodicosis. Another important step in prevention is quality feeding and housing conditions, which is important for maintaining a dog's immune system.

Conclusions. Demodectic mange is a severe dermatosis of dogs, especially young ones, as it is often general in nature and complicated by a microbial infection. Treatment of the invasion can last up to several months, with recurrences. In many countries around the world, demodicosis is a common disease that is difficult to treat carnivores. Demodectic mange is also of social importance, because sick dogs are constantly in contact with their owners and members of their families, which is typical of large cities. But the main reasons for the development of demodicosis are decreased immunity and genetic predisposition.

LACTULOSE AS A REMEDY FOR GASTROENTEROLOGY IN DOGS AND CATS

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Introduction. The health and well-being of animals depends on the physiological state, which is determined by the state of the digestive system, the composition of the intestinal microflora. For the prevention of gastrointestinal diseases in animals, substances are used that promote the reproduction of beneficial microflora in the intestine, which inhibits the growth and development of pathogenic bacteria, promotes an increase in the absorption of nutrients, and activates the body's protective reactions. Such substances are called prebiotics. Prebiotics are defined as indigestible components of food that can have a beneficial effect on the health of an animal by selectively

stimulating the growth and activity of one or more genera of beneficial bacteria. Prebiotics include carbohydrates, in particular lactulose, which are characterized by two important properties at the same time: they are not digested or absorbed in the upper gastrointestinal tract, and are selectively fermented by the microflora of the large intestine, causing the growth of microorganisms.

Aim. Study the effectiveness of using lactulose as a medicine in veterinary practice.

Materials and methods. Analysis of modern literature data on the use of lactulose as a medicine in veterinary practice.

Research results. After analysing the literature, we found that lactulose enters the large intestine unchanged (only about 0.25–2.0% is absorbed unchanged in the small intestine) and is a nutrient substrate for saccharolytic bacteria. Indications for the appointment of lactulose preparations are: treatment of acute or chronic constipation, the need to achieve a soft feces consistency (in case of painful processes, the need for surgery on the colon and / or in the anal area, in the postoperative period); treatment and prevention of hepatic encephalopathy; hyperammonemia of various origins. It has been established that lactulose is used to conduct a hydrogen breath test to detect bacterial overgrowth in the small intestine and to assess motility.

One of the most important areas of application of lactulose is the treatment of acute and chronic constipation of various etiologies, being one of the most effective antihyperammone drugs and at the same time one of the most physiological laxative drugs. The addition of lactulose to animal food increases the volume of the colon, lowers the pH, as well as the ammonia content in the colon, and increases the concentration of short-chain fatty acids, in particular propionic acid.

In the colon, lactulose is broken down by intestinal bacteria to low molecular weight organic acids. These acids lower the pH in the lumen of the colon and, due to the osmotic effect, increase the volume of intestinal contents. This stimulates the peristalsis of the large intestine and normalizes the consistency of feces. Constipation is corrected and the physiological rhythm of digestion is restored. In portosystemic encephalopathy or hepatic coma, the effect of the drug is due to inhibition of the growth of proteolytic bacteria due to an increase in the number of acidophilic bacteria (for example, lactobacilli), transformation of ammonia into an ionized form due to acidification of intestinal contents, and cleansing the intestines from bacterial proteins.

Also, lactulose as a prebiotic enhances the growth of bacteria beneficial to the body, such as bifidobacteria and lactobacilli, while the growth of potentially pathogenic bacteria such as clostridium and E. coli is inhibited. This can lead to a more favorable balance of the intestinal flora.

The laxative effect of lactulose also helps to reduce the concentration of putrefactive bacteria in the intestine and intensify the excretion of ammoniogenic substrates formed in the intestine. As a result of inhibition of the proliferation of proteolytic, potentially pathogenic intestinal flora, for example Escherichia Coli, Clostridium perfringens, the penetration into the blood of their metabolic products, which are toxic substances (ammonia, neurotoxins, carcinogens, etc.), is reduced.

The frequency of side effects of lactulose is significantly lower compared to other laxatives and does not exceed 5-20%, and in most cases they can be considered insignificant. In the first days of taking lactulose, flatulence may appear, which usually resolves on its own in an average of 2 days and does not require the appointment of additional funds. Side effects include diarrhea, nausea, rumbling in the stomach, and epigastric discomfort. The latter is due to the content of osmotically active impurities of other sugars in the preparation. Impurities formed during the synthesis of lactulose (galactose, lactose, tagatose, epilactose and fructose), like mannitol, increase the amount of effective resin in body fluids, causing nausea and vomiting.

In very rare cases, when taking lactulose, abdominal pain and cramps are possible.

Considering that lactulose is not absorbed in the gastrointestinal tract, there are no contraindications to its appointment in patients with diabetes mellitus. Clinical studies have shown a positive effect of lactulose on immunological parameters in diabetes mellitus. In addition, there are currently clinical data on the sugar- and insulin-lowering effects of lactulose without signs of hypoglycemia.

Conclusions. Thus, we found that pharmacological correction of intestinal dysbiosis using lactulose is associated with positive dynamics of biochemical parameters.

The effect of this drug on the animal body is due to the prebiotic effect of lactulose, since it selectively stimulates the growth of beneficial intestinal microflora, inhibiting the pathogenic microflora of the large intestine. Oppression, under the influence of lactulose, of the pathogenic intestinal microflora leads to a significant reduction in the entry into the bloodstream of its toxic metabolites (ammonia, amines, nitrosoamines, phenols, cresols, indole, etc.).

The presented analysis of data on the pharmacological properties and clinical aspects of the use of lactulose supplements the information in support of the high efficacy of lactulose preparations and allows us to conclude that their use is advisable in the treatment of a number of diseases accompanied by chronic constipation and dysbiosis.

ISONIAZIDE POISONING OF DOGS

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Introduction. Isoniazid is an anti-tuberculosis drug used in medicine to treat tuberculosis. It is also used in veterinary medicine to treat infections caused by *Mycobacterium* or *Actinomyces*. Available as tablets, each tablet contains 300 mg of isoniazid. Pills white, yellow or reddish-brown in cross section. When isoniazid comes in contact with water, red or pink spots appear.

The aim. Review of various forms of isoniazid poisoning of dogs, methods of treatment and prevention.

Materials and methods. Analysis of scientific literature and normative documents.

Research results. The lethal dose of isoniazid for dogs is 50 mg per 1 kg of dog weight, i.e., a dog weighing 20 kg will die from taking 3 isoniazid tablets. Dogs are unable to efficiently metabolize isoniazid. The formation of the isoniazid-pyridoxine complex leads to pyridoxine deficiency and as a consequence of reduced synthesis of gamma-aminobutyric acid. Gamma-aminobutyric acid is contained in the nervous system and participates in the processes of inhibition of the central nervous system, providing the brain with energy and controlling its blood circulation, thus carrying out one of the most important effects - anti-hypoxic, i.e., preventing oxygen starvation.

Isonizazide poisoning in dogs leads to symptoms of central nervous system damage - refractory seizures, coma, gastrointestinal symptoms - hypersalivation, vomiting, diarrhea, acid-base imbalance - metabolic acidosis, hyperthermia and organ damage - myocardial infarction, secondary