

***Research Paper***

**DERMATOLOGICAL DISEASES OF PUREBRED DOGS AND HYBRIDS**

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**Abstract**

The skin is an important part of the body with a many functions. Similar to other parts of the body, the disease may occur here as inherently based or obtained in the course of life. Among the most represented diseases include atopic dermatitis and demodikosis. The presence of dermatological diseases, whether predisposed and genetically based or portable (from parents, contact with other dogs, etc.) are quite significant, although not attached great importance. Some of the studies confirmed a significant occurrence and possible predisposition in particular for certain pure breeds. In study was used a questionnaire, we get answers from owners of 416 dogs. Almost ½ were hybrids (42 %), purebred dogs with pedigree were 58 %. The average age was 6 years old. Widely used were demodikosis, ears infection, atopic dermatitis. There were not much differences between pure-bred dogs and hybrids, but the presence of diseases was higher by pure bred dogs with pedigree. A significant was the occurrence of demodikosis, which was more developed than for purebred dogs hybrids. The results are beneficial to the future for the owner, who may avoid certain breeds or predisposed may be an incentive for breeders to change the approach to breeding and breeding individuals itself.

Key words: dog, purebred, hybrid, dermatological diseases.

**INTRODUCTION**

Dermatological (skin) diseases are in veterinary practice abundantly represented. Many dog owners tend to be overlooked and unknowingly disparage the skin problems. The skin is not perceived as an important part of the body of an animal, but as a protective "cover", which is not so important, and dermatitis are generally overlooked. The skin is an indicator of the internal state of the animal, the overall fitness and health. Health and disorders of the immune system are the most commonly manifested through, just through the skin. Also, breeding and the breeding interventions, the creation of some morphological changes (skin fold, ridge, etc.), carry with them risks based on the genetic disposition to certain diseases. Dermatitis can be divided, according to the number of points of view.

On the creation of dermatological disease affects the genetic basis, but also a way of breeding, prevention and treatment of these diseases. [1] stated: "One of the big risks of breeding is the incidence of various hereditary defects and hereditary diseases. Generally these are all deviations from the normal state of the animal, and that are more or less an obstacle in his life. In dogs there are known and described a few hundreds each day, and are described in the other hereditary defects and diseases. Research of hereditary diseases in dogs is important due to the

fact that some knowledge of this branch in dogs very successfully applied to the study of inherited diseases in humans".

Great progress are according to [2] recorded in the "reading" of the canine genome. A study from year 2009 examined over 200 different dogs of 10 phenotypically different breeds and found 155 sections, which show a strong specificity for individual breeds progress during the domestication and breeding of the selection. There are probably more than 200 conditioned genetic diseases of dogs. They are based rather on monogenic inheritance, the majority (70 %) is an autosomal recessive [3].

A many years talks about whether to treat only the pure bred individuals or whether to produce even a hybrids. Generally, when the crossing of foreign breeds occurs in the best case for genetic gain, to heterosis effect and thereby a descendant of these parents good characteristics and disease they more or less shunned. When the controlled breeding of pure-bred breeds would be the transmission of diseases and disorders should also occur, or should be considerably restricted. The progress of genetic conditioned diseases in purebred dogs is primarily responsible for the long-term targeted breeding for a certain body size, coat type, special behavior. Most of present breeds were at least 150 years specifically genetically isolated, there were varying degrees of intensive breeding further modulated by the local popular covering dogs. [4] An example is the Dutch breeding book, when after a period of 30 years for breeding contributed about 5 % of individuals from the general population of the breed. It can be see how narrow the population was used for breeding and rearing. Such populations may breed affect positively, but also mainly negative.

Not all genetically conditioned diseases are tied to pure-bred dogs. In veterinary practice, often appear congenital skeletal defects and a variety of monogenic disorders of hybrids. This suggests that the defect is rather heterogeneous mutation [5]. They are still important new knowledges and techniques of examination of transmission of canine inherited diseases and documentation in veterinary surgeries that help to detect chromosomal abnormalities or interaction among many genes and exogenous factors as the cause of hereditary skin diseases [6]. It is also important the control of the hybrids.

## RESULTS

The owners of 416 dogs filled the questionnaire 15 questions. 42 % of dogs were hybrids, dogs with pedigree was 58 %. The average age was 6 years old. The first symptoms appeared, ranging from 6 months (up to 10 individuals) to 2 years of age (approximately 20 individuals), the rise of manifestations occurred in purebred dogs around 2 years of age. Owner knew nothing about the family dog by 60 sick dogs. 50 % of the dogs were fed with granules (more purebred dogs), cooked food and canned goods 20 %, "BARF" were fed 30 % of dogs, the combination of feed more in pure-bred dogs. 50 % of the dogs were products of the so-called "buffalo skin", human snacks get 35 %, 20 % were receiving dried meat.

The most common method of breeding of 45 % was at home and the house with the garden. Hutch was almost extended (approx. 5 %, and more frequently in the breeding of pure-bred dogs). For the sick dogs an important position by demodikosis (almost 20 %) and recurring ears infection (above 20 %), most of the other skin diseases have been at the level of 10 %.

The problem may also be in the presence of fleas. Less than 5 % of the dogs owners weren't sure if the dog had fleas or not, 60 % of the dogs is not, and 35 % of the dogs is should. Regarding the differences between the groups, often attacked by fleas were hybrids (to 50 %), while purebred dogs was challenged by just less than 30 %.

## DISCUSSION

The average age of dogs in both groups moved in 6 years. According to [7] atopic dermatitis occurred most frequently from 1 year to 3 years of age the dog, and according to [8] age played no role. It was detected and the high incidence of demodikosis, the proportion of the age range may be sick of dogs (from 6 months to 2 years), according to a study from the year 2012, demodikosis were most commonly infected dogs from 1 to 5 years of age [9].

The track of dog gender were from the entire number of sick dogs represented only 15 dogs and 26 bitches with a pedigree and 13 dogs with 15 bitches hybrids. An interesting result was the number of females with pedigree, which more often (60 %) have dermatological diseases, compared to the female hybrids (50%), and the dogs of both groups. According to [9] would not have an impact the gender on the demodikosis, but [10] states that estrus cycles of the females may complicate treatment, respectively or have recurrence of disease. By over the 60 dog breeds, most skin diseases manifested by breeds such German Shepherd, Border Collie, American Stafford Terrier, Rottweiler, Collie, Belgian Shepherd Malinoise, these breeds were found to have a predisposition to atopic dermatitis and demodikosis [7], [11].

In terms of breeding were 50 % of dogs bred at flat in house and in house with garden were around 40 % of dogs, which are the places with the possible occurrence of mites of dust [12] (Noli et al., 1996), fungi and dry storage mites [13].

The owners appear easier to infestation of fleas (up to 70 %) that occur primarily in the late summer and autumn [14] (Svoboda et al., 2000). It may have an effect on the low percentage of coverage of fleas around to 40 %. The half of the dogs were fed treats of human food to food sensitivities (in the study identified), a predisposition are similar for both hybrids and purebred dogs by [11], some predisposed individuals leads to the onset of food allergies.

Widely occurred were demodikosis, ears infection, atopic dermatitis. There were too much differences between group of pure-bred dogs and hybrids, but the morbidity of pure-bred dogs with pedigree was higher. A significant occurrence of demodikosis was more developed for purebred than dogs hybrids.

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