

Lidia FELSKA-BŁASZCZYK , Patrycja ŁASKA

HEALTH PROBLEMS IN SELECTED BREEDS OF LARGE DOGS

Department of Animal Anatomy and Zoology, West Pomeranian University of Technology in Szczecin, Poland

Abstract. The aim of the study was to analyse selected large dog breeds in terms of the incidence of their typical diseases. The research part of the study was based on an analysis of questionnaires carried out among owners and breeders of pedigree dogs and veterinarians. The questionnaires asked questions concerning, among other things, the choice of a particular breed for breeding and diseases occurring in dogs. Four large dog breeds were selected for analysis and these were the German Shepherd, Golden Retriever, Labrador Retriever and Bernese Mountain Dog. As a result of the analysis, it can be seen that dog owners are not interested in the health status of a breed before buying a pet, and the main criterion for choosing a dog was disposition and physical appearance. Both dog owners and veterinary surgeons indicated that large breed dogs are most commonly affected by musculoskeletal disorders. The most vulnerable breeds to musculoskeletal injuries or diseases according to owners were the Golden Retriever and the Bernese Mountain Dog. According to veterinarians, all large and giant dogs are at risk of musculoskeletal health problems, but the breeds with the highest risk of these diseases are German Shepherds and Bernese Mountain Dogs. Surveys carried out have shown some inappropriate phenomena – the reluctance of some breeders to talk about the health problems of the dogs they keep. Therefore, it seems advisable to promote knowledge of diseases in pedigree dogs, which will allow more thoughtful breeding, if only through appropriate mating, and consequently increase the comfort of the dogs' lives.

Key words: dog breeding, pedigree dog, health problems.

INTRODUCTION

As a result of a long process of domestication, many breeds of domestic dog, *Canis familiaris*, have been created that differ in size, coat, performance, disposition and many other characteristics. In properly managed breeding, selection and breeding of dogs focuses on maintaining desirable and good traits in the breed, while any bad or unwanted ones are attempted to be eliminated by excluding individuals laden with them from further reproduction (Czerwinski et al. 2016; Pilot et al. 2016). Throughout the centuries, not all breeders have paid enough attention to keeping dogs of suitable health, and have been guided primarily by meeting breed standard requirements, including, above all, suitable appearance. Today, most purebred dogs are companion dogs rather than performance dogs, which has led to a prioritisation of the dog's appearance (exterior) rather than its performance (King et al. 2012). It is this elaborate appearance that is not

Corresponding author: Lidia Felska-Błaszczuk, Department of Animal Anatomy and Zoology, West Pomeranian University of Technology in Szczecin, Faculty of Biotechnology and Animal Husbandry, Klempensa Janickiego 33, 71-270 Szczecin, e-mail: lidia.felska-blaszczuk@zut.edu.pl.

infrequently the reason why many health problems arise as a result of ill-considered mating of animals, often under the influence of fashionable breeding pressure imposed by man. On many occasions, reckless pseudo-breeders, seeing the demand for increasingly “fancy” puppies, have started to mass-produce them without paying attention to their health. Achim Gruber, a German veterinary pathologist, called such dogs “elegant invalids” in his book on pets (Gruber 2020). Another reason for the appearance of diseases in pedigree dogs is the genetic structure of the population, described, among other things, by the level of relatedness and inbreeding. These indicators should be carefully monitored in order to avoid mating in too close kinship, which leads to a decrease in the gene pool and the appearance of inbreeding depression (Leroy 2011; Kania-Gierdziewicz et al. 2014), with which the appearance of health problems is closely linked.

Health problems in purebred dogs have become a hallmark of some breeds, significantly reducing their comfort level. This does not stop some breeders who, by breeding dogs with health problems, contribute to expanding the gene pool burdened by them. Many times they do not even want to talk about their dogs’ health problems. This was the case during the writing of this paper, where a questionnaire on dog health was sent to breeders of selected breeds with a request for them to fill it in. This was met with great reluctance on their part. It seems, therefore, that special attention should be paid, especially to dog breeders, to the topic of comfort in certain breeds.

Among the different breeds, large and giant breed dogs can also be burdened with a number of diseases. These diseases mainly affect the musculoskeletal system, the cardio-respiratory system, the digestive system, but also other systems in the body. One of the most common musculoskeletal diseases in dogs is hip dysplasia, which affects from about 2% to even more than 48% of dog breeds (Janicki 2012), as well as elbow dysplasia (Martí-Angulo et al. 2014). Meanwhile, of the cardiorespiratory diseases common in these breeds are atrial fibrillation (Borgarelli et al. 2004), or cardiac valve regurgitation (Haggstrom 2004; Bomassi 2008). Most reports on diseases occurring in large breeds have been described outside Poland, which is why we have taken up this topic.

The aim of this study was to analyse selected large dog breeds in terms of their typical diseases.

MATERIAL AND METHODS

The research part of the study was based on an analysis of questionnaires carried out among breeders and owners of pedigree dogs and veterinarians regarding the breeds most affected by health disorders. The questionnaires asked questions such as the criterion for selecting a dog for breeding, as well as information on past and present diseases. Veterinarians were asked about breed groups, divided into brachycephalic and large breeds, in which diseases of the musculoskeletal system and cardiorespiratory diseases were found, as well as the most common reasons for visits to the veterinarian for large breeds of dogs.

Four breeds of large dogs aged between 4 and 5 years were selected for analysis and were:

- German Shepherd – 13 individuals,
- Golden Retriever – 12 individuals,
- Labrador Retriever – 8 individuals,
- Bernese Mountain Dog – 8 individuals.

The analysis, for the responses obtained from dog owners and breeders, included:

- the criterion of choice of dog breed by owners and breeders,

- the presence of diseases at the time of the survey and in the past,
- the types of diseases affecting dogs,
- types of chronic diseases occurring in dogs.

Surveys for veterinarians were completed by a total of 10 people. When completing them, veterinarians often pointed out the health problems of brachycephalic dogs and compared their problems with those of large and giant breeds. Brachycephalic dogs are not the subject of this study and only served as a comparison with the results for large breeds. The analysis, for responses from veterinarians, included:

- breeds of dogs (divided into brachycephalic and large breeds) with musculoskeletal and cardiorespiratory health problems,
- the most common reasons for visits to the doctor for large breed dogs.

The results were analysed in Excel and presented as graphs.

RESULTS

Most of the responses analysed in the survey intended for breeders and owners of pedigree dogs were obtained from dog owners, not breeders. In the course of answering the questions in this survey, a great deal of hostility was often encountered from breeders of pedigree dogs. They were unwilling to provide answers and even accused the authors of this publication of being hostile. This unfortunately confirms the hypothesis that many pedigree dog breeders do not want to talk about the health problems of the dogs they breed, that there is a kind of “conspiracy of silence” among them.

Analysis of responses to questionnaires for dog breeders and owners

When it came to the criterion for dog owners or breeders to choose a dog, the respondents could enter any answer. The answers were grouped into four categories – it was found that dog owners, when choosing a dog, were guided by: the appearance of the animal, childhood sentiment, the utility of the dog (working breed) and the disposition (character) of the dog. The results of the responses are presented in Fig. 1. None of the respondents gave a criterion for choosing a breed because of its healthiness. This aspect did not interest them at all, and the main reason for the owners’ choice of breed was the dogs’ disposition. More than

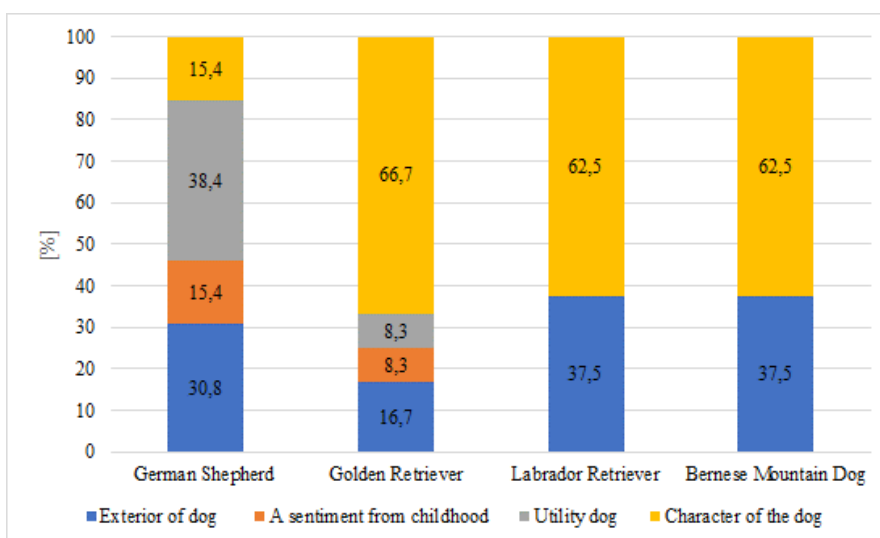


Fig. 1. Criteria for dog breed selection by owners and breeders

62% of owners gave this selection criterion for the Golden Retriever, Labrador Retriever and Bernese Mountain Dog breeds. Different reasons for owning a dog were given by owners of German Shepherds. In this case, the main criteria were whether they were working (utility) dogs and the appearance of the dog. Overall, the appearance of the dog was the second most important criterion for owners to choose a dog. Surprisingly, none of the owners gave a criterion related to the health of the dogs. It seems, therefore, that when choosing a dog for a home for dog owners, the health of the breed is not the most important consideration.

Analysing the presence of health problems occurring in dogs at the time of the survey (Fig. 2), it was found that in all breeds observed, the majority of animals were healthy at the time of the survey (between 83 and 88% of cases). The highest incidence of disease was in Golden Retriever and German Shepherd dogs (17% of cases).

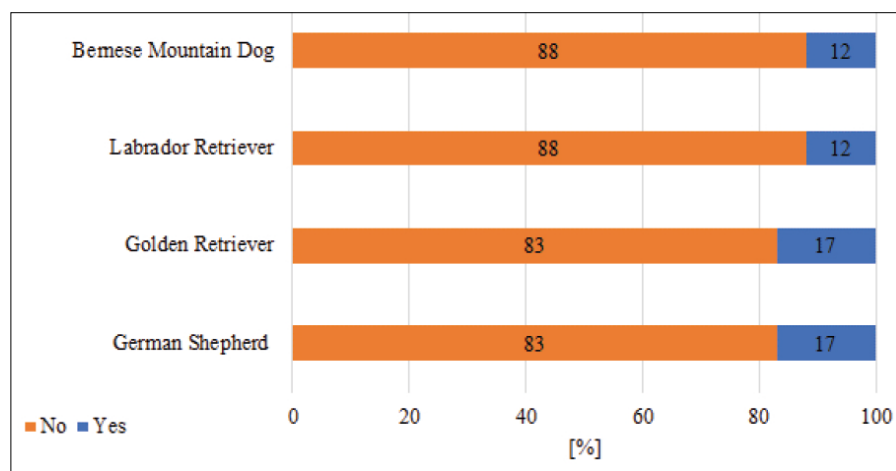


Fig. 2. Presence of disease at the time of completing the questionnaire

At the same time, many dog owners reported that their dogs had been ill in the past (Fig. 3). Such a phenomenon can be seen again in the Golden Retriever breed, where 75% of the dogs surveyed had pre-existing conditions. The dogs with the lowest percentage of past illnesses were Labrador Retrievers.

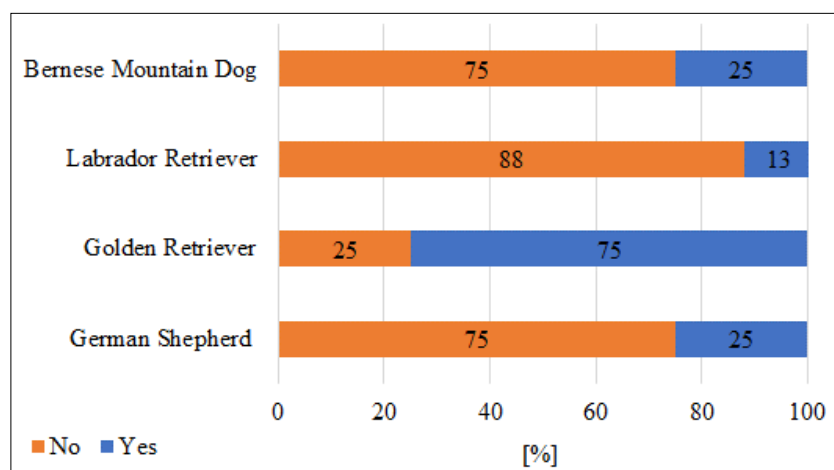


Fig. 3. Prevalence of diseases prior to completing the survey

The Fig. 4 shows a detailed analysis of the diseases that are or were present in the observed dogs. It was found that diseases of the musculoskeletal system were the most common, with

Golden Retrievers generally suffering from the disease, but also Bernese Mountain Dogs and German Shepherds. In second place were urinary tract diseases, which occurred in German Shepherds and Golden Retrievers. Furthermore, respiratory diseases were found in Labrador Retrievers, in which eye diseases and tumours were also recorded. In addition, allergies and parasites were encountered in German Shepherds and Bernese Mountain Dogs.

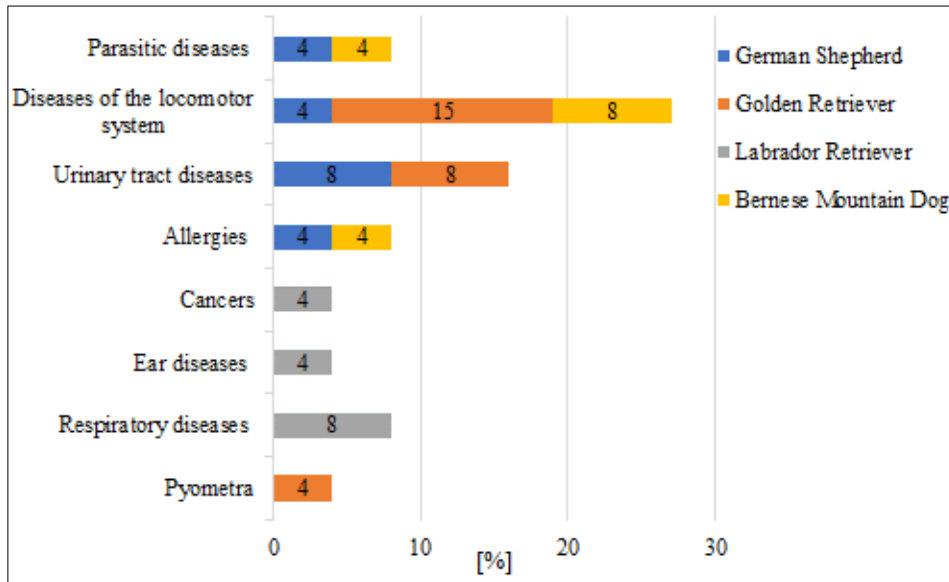


Fig. 4. Diseases that occurred in the breeds analysed

According to the answers given by owners or breeders of purebred dogs, Golden Retrievers were the breed with the most health problems among the observed breeds. However, of the diseases occurring in these breeds, diseases of the musculoskeletal system were most frequently noted.

Analysis of responses to surveys for veterinarians

In the case of veterinary survey responses, it was observed that large breed dogs were three times more likely to have musculoskeletal problems than brachycephalic breeds (Fig. 5). However, for cardiorespiratory problems, the situation was the opposite, with large breed dogs twice as likely to suffer from cardiorespiratory problems as brachycephalic dogs.

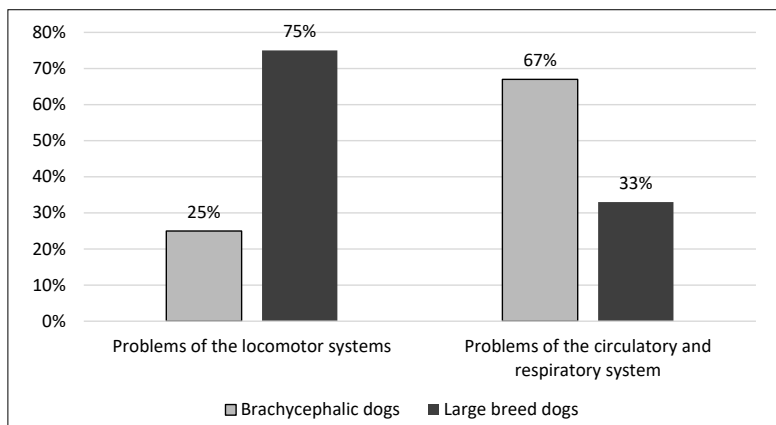


Fig. 5. Prevalence of musculoskeletal and cardiorespiratory problems in dogs in selected breed groups

When asked what the most common diseases are in large breed dogs (Fig. 6), veterinarians cited three groups of conditions – gastric torsion, musculoskeletal problems and cardiopulmonary problems. At the same time, they identified musculoskeletal problems as the most common condition in large breed dogs. On the other hand, problems related to gastric dilation and volvulus syndrome (GDV) came in second place. When asked – which large breeds they would identify as having the most health problems, veterinarians mentioned two – German Shepherd Dogs and Bernese Mountain Dogs.

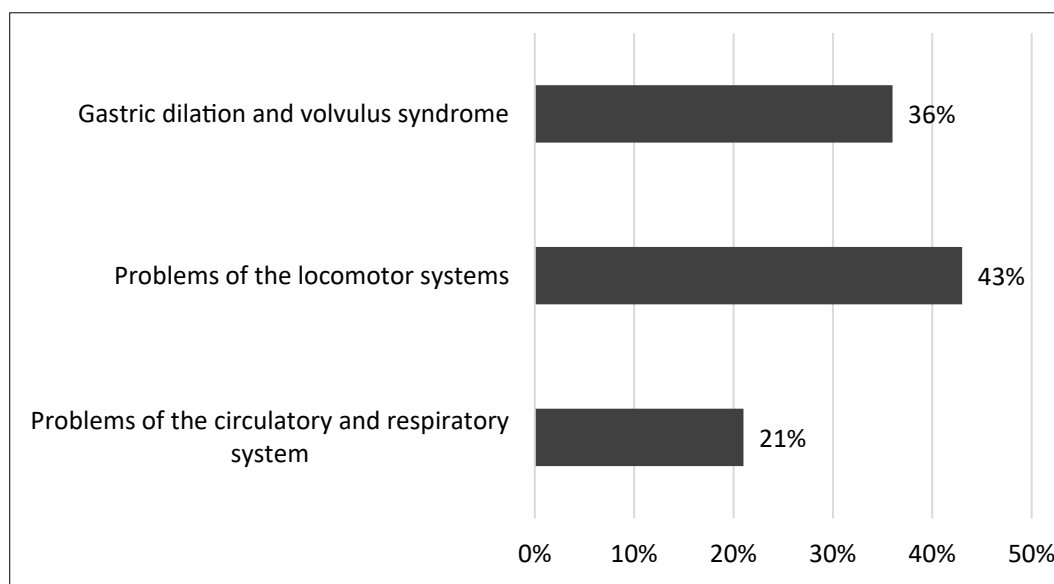


Fig. 6. The most common reasons for visits to the vet for large breed dogs

DISCUSSION

The large size of the dog may increase the risk of certain diseases and determine the lifespan of the animals. Socha et al. (2022) found that purebred dogs were more prone to health problems and a shorter lifespan than non-breed dogs and interbreed hybrids of the same size. They also noted that a trend can be observed in purebred dogs – the larger the dog, the shorter the life span, which is the complete opposite of that observed in wild animals, where as body size increases, life span will increase. Adams et al. (2010) and Fleming et al. (2011) also found that smaller dog breeds tend to have longer life expectancy compared to large breeds.

According to the survey carried out in this study, it can be seen that the most common health problem in dogs classified as large breeds was musculoskeletal disorders, including hip dysplasia. The veterinarians surveyed stated that they encountered musculoskeletal problems in large and giant breed dogs three times more often than in brachycephalic dogs. Golden Retrievers, Bernese Mountain Dogs and German Shepherds were the most affected breeds. In addition, other musculoskeletal diseases such as elbow dysplasia, hypertrophic osteodystrophy (HOD), osteochondrosis (OC), osteochondritis dilation (OCD), cartilage core retention, and panosteitis occur in large and giant breed dogs (Trostel et al. 2003; Demko and McLaughlin 2005; Lauten 2006; Bieżyński et al. 2012). The results of the study showed that Labrador Retriever dogs had the lowest percentage of disease, however, according to some authors, dogs of this breed are more predisposed to osteoarthritis than other breeds (Pegram et al. 2021).

Among the dog breeds analysed, Golden Retrievers had the worst health condition. According to the authors, Golden Retrievers often suffer from spectrin deficiency, which can cause haemolytic anaemia (Slappendel et al. 2005). Other authors report that Golden Retrievers are most commonly affected by various skin, gastrointestinal and urinary tract diseases (Simpson et al. 2017). The breed is also one of the breeds in which muscular dystrophies are encountered (Świtoński and Loba 2021) and von Willebrand's disease, one of the most common congenital haemorrhagic diathesis caused by a deficiency or defective von Willebrand factor (Łobodzińska and Gruszczyńska 2013).

In the case of Bernese Mountain Shepherd Dogs, a long list of diseases results in a decreasing life expectancy for these dogs. According to an analysis by Klopfenstein et al. (2016), the average life expectancy was 8.4 years for this breed, with females having a significantly longer life expectancy of 8.8 years than males with 7.7 years. These authors reported that the main causes of their deaths were cancer, osteoarthritis, spinal disorders, kidney damage and gastric torsion (GDV). GDV, according to the veterinarians in our analysis, was the second most common disease in large breed dogs, after problems with the locomotor apparatus. Larger-breed dogs are predisposed to gastric torsion and dilatation (GDV), so the presence of this condition in the doctors' responses was not surprising. Bhatia et al. (2010) report that large breed dogs are more likely to have GDV than smaller breeds. Proschowsky et al. (2003), on the other hand, found that the life expectancy of Bernese Mountain Dog breeds is only 7 years. In the case of German Shepherds, the life expectancy is slightly higher and, as reported by O'Neill et al. (2017) it is 10.3 years. According to these authors, the most common health disorders in dogs of this breed are external otitis, osteoarthritis, diarrhoea, overweight and obesity and aggression.

Other health problems, such as allergies or the presence of parasites, occurred relatively evenly among the study groups and no trend towards their occurrence in a particular breed became apparent. Two breeds, German Shepherds and Golden Retrievers, were found to have urinary tract diseases. As reported by Norris et al. (2000) and Jasim (2012) urinary tract infections are common diseases in German Shepherds, especially in females. Thompson (2016), on the other hand, found that the Golden Retriever breed is also predisposed to urinary tract disease.

Heart disease ranks third in terms of prevalence in large breed dogs in the responses of doctors. According to Brambilla et al. (2020), one of the most common heart diseases in large breed dogs such as the Doberman, German shepherd and Newfoundland is patent ductus arteriosus PDA. In the Doberman and German shepherd, chronic valve disease CVD is also quite common (Atkins et al. 2009).

The results of the present study showed a certain worrying trend among purebred dog owners, namely that the main criterion for owning purebred dogs is the dog's disposition and appearance rather than a health criterion. The authors had already reported on this tendency in an earlier study on brachycephalic dogs (Felska-Błaszczyk and Seremak 2021). The analysis conducted should draw the attention of both dog breeders and ordinary dog owners to pay more attention to the healthiness of a breed and that fashion and trends should not influence the choice of a dog breed more than concern for its health. The task for breeders of pedigree dogs in the coming years is to improve the well-being of these dogs, primarily through responsible mating of animals in kennels. This requires the cooperation of breeders with veterinarians but also with canine judges, because it is often their judgement at canine shows that determines the breed pattern and appearance of the dog and, consequently, the health of the dog. It is the meeting of show requirements that may have had a direct impact on the emergence of health problems in pedigree dogs. Indrebø (2008) found that canine

judges may contribute to the occurrence of health problems in pedigree dogs by pressuring breeders to select dogs of suitable appearance for breeding, in what is known as “over-typing in a breed”. The author of this study concluded that judges need to recognise their responsibility for health problems in pedigree dogs and oblige breeders to introduce appropriate breeding programmes to improve animal welfare. Collaboration between veterinarians and kynological associations is therefore needed to educate judges on the functional anatomy and various health problems of pedigree dogs.

In the course of collecting data for this study, a significant problem was noticed. Well, breeders were reluctant to answer the survey questions, accusing the interviewers of ill-will. This was all the more strange as no specific breeds were suggested in the survey, only questions relating to the health of dogs of all breeds. The impression was that the subject of health problems in pedigree dogs was uncomfortable for breeders and they did not want to talk about it. The questionnaire could seem quite uncomfortable for breeders of dogs that actually tend to get sick more often than other breeds due to their conformation. Therefore, despite the reluctance of some breeders, or even in spite of them, the topic of diseases of pedigree dogs should be presented clearly and to the wider public in order to make dog breeders aware of the importance of improving the well-being of dogs, including through appropriate mating of animals for breeding.

CONCLUSIONS

As a result of the analysis carried out, it can be seen that dog owners are not interested in the health condition of a particular breed before buying a pet, and that the main criteria for choosing a dog were disposition and physical appearance. Both dog owners and veterinary surgeons indicated that large breed dogs are most commonly affected by musculoskeletal disorders. The most vulnerable breeds to musculoskeletal injuries or diseases according to owners were the Golden Retriever and the Bernese Mountain Dog. According to veterinarians, all large and giant dogs are in the risk group for these health problems, however, the breeds with the greatest health problems are German Shepherds and Bernese Mountain Dogs. The questionnaire survey showed a certain inappropriate phenomenon – a reluctance on the part of some breeders to talk about the health problems of the dogs they keep, while knowledge of dog diseases will allow them to breed more thoughtfully, if only through appropriate mating, which will consequently increase the comfort of their dogs.

REFERENCES

- Adams V.J., Evans K.M., Sampson J., Wood J.L.** 2010. Methods and mortality results of a health survey of purebred dogs in the UK. *J. Small Anim. Pract.* 51, 512–524. DOI: 10.1111/j.1748-5827.2010.00974.x.
- Atkins C., Bonagura J., Ettinger S., Fox P., Gordon S., Haggstrom J., Hamlin R., Keene B., Luis-Fuentes V., Stepien R.** 2009. Guidelines for the diagnosis and treatment of canine chronic valvular heart disease. *J. Vet. Intern. Med.* 23(6), 1142–1150. DOI: 10.1111/j.1939-1676.2009.0392.x.
- Bhatia A.S., Tank P.H., Karle A.S., Vedpathak H.S., Dhama M.A.** 2010. Gastric dilation and volvulus syndrome in dog. *Vet. World* 3(12), 554–557.
- Bieżyński J., Skrzypczak P., Piątek A., Kościółek N., Drożdżyńska M.** 2012. Assessment of treatment of Osteochondrosis dissecans (OCD) of shoulder joint in dogs – the results

- of two years of experience. *Pol. J. Vet. Sci.* 15(2), 285–290. DOI: 10.2478/v10181-011-0146-0.
- Bomassi E.** 2008. Case report: Mitral valve disease in a large breed dog. *EJCAP* 18(2), 145–148.
- Borgarelli M., Zini E., D’Agnolo G., Tarducci A., Santilli R.A., Chiavegato D., Tursi M., Prunotto M., Haggstrom J.** 2004. Comparison of primary mitral valve disease in the German Shepherd dog and in small breeds. *J. Vet. Cardiol.* 2004, 6(2), 27–34. DOI: 10.1016/S1760-2734(06)70055-8.
- Brambilla P.G., Polli M., Pradelli D., Papa M., Rizzi R., Bagardi M., Bussadori C.** 2020. Epidemiological study of congenital heart diseases in dogs: Prevalence, popularity, and volatility throughout twenty years of clinical practice. *PLoS ONE* 15(7), e0230160. DOI: 10.1371/journal.pone.0230160.
- Czerwinski V., McArthur M., Smith B., Hynd P., Hazel S.** 2016. Selection of breeding stock among Australian purebred dog breeders, with particular emphasis on the dam. *Animals* 6(11), 75. DOI: 10.3390/ani6110075.
- Demko J., McLaughlin R.** 2005. Developmental orthopedic disease. *Vet. Clin. North Am. Small Anim. Pract.* 35, 1111–1135. DOI: 10.1016/j.cvsm.2005.05.002.
- Felska-Błaszczak L., Seremak B.** 2021. Negatywne zmiany zdrowotne u psów brachycefalicznych wynikające z presji hodowlanej – praca przeglądowa [Negative health changes in brachycephalic dogs resulting from breeding pressure – a review]. *Rocz. Nauk. Zootech.* 48(1), 15–28 [in Polish].
- Fleming J.M., Creevy K.E., Promislow D.E.** 2011. Mortality in North American dogs from 1984 to 2004: an investigation into age-, size-, and breed-related causes of death. *J. Vet. Intern. Med.* 25(2), 187–198. DOI: 10.1111/j.1939-1676.2011.0695.x.
- Gruber A.** 2020. *Dramat zwierząt domowych*. Łódź: Feeria [in Polish].
- Haggstrom J.** 2004. Mitral regurgitation in large dogs. *J. Vet. Cardiol.* 2004, 6(2), 6–7. DOI: 10.1016/S1760-2734(06)70052-2.
- Indrebø A.** 2008. Animal welfare in modern dog breeding. *Acta Vet. Scand.* 50(Suppl 1), S6. DOI: 10.1186/1751-0147-50-S1-S6.
- Janicki A.M.** 2012. *Pies. Dysplazja stawów biodrowych*. Łódź: Galaktyka [in Polish].
- Jasim H.M.** 2012. Hematological, biochemical and urinalysis for the diagnosis of urinary tract infection in German shepherd dog. *Bas. J. Vet. Res.* 11(2), 37–46. DOI: 10.33762/bvetr.2012.68914.
- Kania-Gierdziewicz J., Gierdziewicz M., Kalinowska B.** 2014. Analiza spokrewnienia i inbredu golden i labrador retrieverów z krakowskiego Oddziału Związku Kynologicznego w Polsce [Inbreeding and relationship analysis of the Golden and Labrador Retriever populations in the Cracow Branch of the Polish Kennel Club]. *Rocz. Nauk. PTZ* 10(1), 9–19 [in Polish].
- King T., Marston L.C., Bennett P.C.** 2012. Breeding dogs for beauty and behaviour: Why scientists need to do more to develop valid and reliable behaviour assessments for dogs kept as companions. *Appl. Anim. Behav. Sci.* 137(1-2), 1e12. DOI: 10.1016/j.applanim.2011.11.016.
- Klopfenstein M., Howard J., Rossetti M., Geissbühler U.** 2016. Life expectancy and causes of death of Bernese mountain dogs in Switzerland. *BMC Vet. Res.* 12(1), 153. DOI: 10.1186/s12917-016-0782-9.
- Lauten S.D.** 2006. Nutritional risks to large-breed dogs: from weaning to the geriatric years. *Vet. Clin. Small Anim.* 36, 1345–1359. DOI: 10.1016/j.cvsm.2006.09.003.

- Leroy G.** 2011. Genetic diversity, inbreeding and breeding practices in dogs: Results from pedigree analyses. *Vet. J.* 189(2), 177–182. DOI: 10.1016/j.tvjl.2011.06.016.
- Łobodzińska A., Gruszczyńska J.** 2013. Canine von Willebrand's disease – knowledge and awareness among dog breeders and owners in Poland. *Ann. Warsaw Univ. of Life Sci. – SGGW, Anim. Sci.* 52, 95–103.
- Martí-Angulo S., García-López N., Díaz-Ramos A.** 2014. Efficacy of an oral hyaluronate and collagen supplement as a preventive treatment of elbow dysplasia. *J. Vet. Sci.* 15(4), 569–574. DOI: 10.4142/jvs.2014.15.4.569.
- Norris C.R., Williams B.J., Ling G.V., Franti C.E., Johnson D.L., Ruby A.L.** 2000. Recurrent and persistent urinary tract infections in dogs: 383 cases (1969–1995). *J. Am. Anim. Hosp. Assoc.* 36(6), 484–492. DOI: 10.5326/15473317-36-6-484.
- O'Neill D.G., Colson N.R., Church D.B., Brodbelt D.C.** 2017. Demography and disorders of German Shepherd Dogs under primary veterinary care in the UK. *Canine Genet. Epidemiol.* 4, 7. DOI: 10.1186/s40575-017-0046-4.
- Pegram C., Wooley C., Brodbelt D.C., Church D.B., O'Neill D.G.** 2021. Disorder predispositions and protections of Labrador Retrievers in the UK. *Sci. Rep.* 11, 13988. DOI: 10.1038/s41598-021-93379-2.
- Pilot M., Malewski T., Moura A.E., Grzybowski T., Oleński K., Kamiński S., Fadel F.R., Alagaili A.N., Mohammed O.B., Bogdanowicz W.** 2016. Diversifying selection between pure-breed and free-breeding dogs inferred from Genome-Wide SNP analysis. *Genes Genom. Genet.* 6(8), 2285–2298. DOI: 10.1534/g3.116.029678.
- Proschowsky H.F., Rugbjerg H., Ersbøll A.K.** 2003. Mortality of purebred and mixed-breed dogs in Denmark. *Prev. Vet. Med.* 58(1–2), 63–74. DOI: 10.1016/s0167-5877(03)00010-2.
- Simpson M., Searfoss E., Albright S., Brown D.E., Wolfe B., Clark N.K., McCann S.E., Haworth D., Guy M., Page R.** 2017. Population characteristics of Golden Retriever lifetime study enrollees. *Canine Genet. Epidemiol.* 4, 14. DOI: 10.1186/s40575-017-0053-5.
- Slappendel R.J., van Zwieten R., van Leeuwen M., Schneijdenberg C.T.** 2005. Hereditary spectrin deficiency in Golden Retriever dogs. *J. Vet. Intern. Med.* 19, 187–192. DOI: 10.1111/j.1939-1676.2005.tb02680.x.
- Socha S., Mirońska M., Kołodziejczyk D.** 2022. Analysis of factors affecting the quality and length of life of dogs. *Acta Sci. Pol. Zootechnica* 21(3), 3–12. DOI: 10.21005/asp.2022.21.3.01.
- Świtoński M., Loba W.** 2021. Diagnostyka molekularna chorób dziedzicznych psa we współczesnej weterynarii [Molecular diagnostics of canine hereditary diseases in modern veterinary medicine]. *Życie Weter.* 96(7), 488–491 [in Polish].
- Thompson M.F.** 2016. Preventing canine urinary tract infection (UTI) using an asymptomatic bacteriuria (ASB) *Escherichia coli* strain. A thesis submitted for the degree of Doctor of Philosophy at The University of Queensland in 2016, School of Veterinary Science.
- Trostel C.T., Pool R.R., McLaughlin R.M.** 2003. Canine lameness caused by developmental orthopedic diseases: panosteitis, legg calvé-perthes disease, and hypertrophic osteodystrophy. *VetLearn.com* 25(4), 282–293.

PROBLEMY ZDROWOTNE U WYBRANYCH DUŻYCH RAS PSÓW

Streszczenie. Celem pracy była analiza występowania typowych chorób u wybranych dużych ras psów. Część badawcza oparta została na analizie ankiet przeprowadzonych wśród właścicieli i hodowców psów rasowych oraz lekarzy weterynarii. W ankietach pytano m.in. o powody wyboru danej rasy do hodowli oraz o choroby występujące u psów. Do analizy wybrane zostały cztery rasy psów dużych: owczarek niemiecki, golden retriever, labrador retriever oraz berneński pies pasterski. Wykazano, że właściciele psów przed zakupem pupila nie zwracają uwagi na kondycję zdrowotną danej rasy. Głównym kryterium wyboru jest usposobienie oraz wygląd zewnętrzny psa. Zarówno właściciele, jak i lekarze weterynarii wskazali, że u ras dużych najczęściej występują schorzenia związane z układem ruchu. Rasami najbardziej narażonymi na urazy lub schorzenia układu ruchu według właścicieli były golden retriever i berneński pies pasterski. Według lekarzy weterynarii wszystkie psy duże i olbrzymie znajdują się w grupie ryzyka problemów zdrowotnych układu ruchu, jednakże rasami szczególnie narażonymi są owczarki niemieckie i berneńskie psy pasterskie. Przeprowadzone badania ankietowe ujawniły pewne niepokojące zjawisko – niechęć niektórych hodowców do rozmawiania o problemach zdrowotnych psów. W związku z tym celowe wydaje się propagowanie wiedzy na temat chorób psów rasowych, co może przyczynić się do bardziej przemyślanej hodowli, chociażby dzięki odpowiedniemu kojarzeniu zwierząt, a w konsekwencji do podniesienia komfortu życia psów.

Słowa kluczowe: hodowla psów, pies rasowy, problemy zdrowotne.