DIGESTIVE DISORDERS ASSOCIATED WITH DIETARY CHANGES IN DOGS

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RESEARCH ARTICLE

Abstract

A balanced diet is essential both for the development and maintenance of a healthy body and for the prevention of many problems such as gastrointestinal disorders, obesity, diabetes, mineral imbalances, or adverse reactions to food. To avoid these disorders, the feed given must be appropriate to the animal's age, size, and breed. This paper aims to monitor how dogs are fed, the type and quality of diet used, the frequency of changes in feeding, and any changes that occur as a result of these changes. From the survey, we have observed that owners tend to make changes without being aware of the consequences that may occur after a sudden change to a different food, due to a desire to diversify their dog's diet. The main manifestations of these changes are gastrointestinal disorders represented by diarrhea, loose feces, and vomiting.

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INTRODUCTION

The nutritional needs of dogs change depending on their stage of development or due to health problems that arise during life that require a special diet to support normal body function. A balanced diet should provide the required amount of energy, have increased digestibility, contain the required nutrients in optimal amounts, and have high palatability. There may be stages in life when we need to change our pet's diet (Case, 2011). Changing a dog's diet should not be done without prior analysis or a veterinarian's recommendation, especially when it comes to puppies. Changing the diet is recommended in some cases, such as switching from puppy food to adult food, or from adult food to senior food. There are also cases where changing the diet is necessary for health reasons, such as adverse reactions to food (Gargano et al, 2022, Cave et al, 2012).

Some changes and the way they are made are not always beneficial to the health of the animals, causing digestive disorders (Zoetendal et al, 2004, Candellone et al, 2020). A complex ecosystem of bacteria, viruses, fungi, and protozoa make up the canine, and fecal microbiota, however bacteria predominate and are the most studied organisms (Garcia-Mazcorro et al, 2012; Swanson et al, 2011). The colon is considered to be densely colonized by these bacteria, which are essential to the host in several ways.

Several diseases in humans, including inflammatory bowel disease, have been linked to disturbances in the delicate balance of bacteria (Herstad et al, 2017; Minamoto et al, 2015). gs may also benefit from this, according to some experts (Herstad et al, 2017; Suchodolski et al, 2012).

Changes in dog food alone have been linked to gastrointestinal issues that can cause diarrhea and inconsistent feces (Davenport et al, 2009). Veterinarians are frequently troubled by this alteration in the fecal ecology, which has led to ideas of progressive food adjustments to stop these ills. There is little evidence as to why some feeds are more likely to be assimilated than others, although some diets tend to create greater fecal consistency than others. Resistant starches, substrate digestibility, insoluble and soluble fiber concentration, lipid tolerance, and total dry matter intake are just a few of the many factors that might influence fecal consistency (Wakshlag et al, 2011).

The main problem for the majority of gastrointestinal diseases in dogs was that of clinical signs which may include vomiting, diarrhea, and weight loss which are shared by many conditions that have either primary or secondary effects on the gastrointestinal tract (Rakha et al, 2015). For these facts, gastrointestinal disorders in dogs were considered one of the most common and

important causes of presentation to clinicians (Malancus et al, 2010; Armstrong et al, 2013).

MATERIAL AND METHOD

Lately, more and more owners are interested in giving their dogs a more diet, under the impression that the animal gets bored of the same food, not knowing or ignoring the possible consequences of sudden changes in diet. The main objective of this work was to identify the behavior of dog owners and how they choose to feed their dogs, the frequency of changes in the food given, and any clinical signs of these changes. To track owner trends in how pets are fed, we conducted a study using a statistical survey.

A total of 115 owners with only one companion animal participated in the survey. The questionnaire was distributed using an online social media platform but also through direct interaction with owners using the free survey platform provided by www.isondaje.ro. The time taken to complete the questionnaire was approximately 3 minutes, comprising simple questions so that there were no problems of misunderstanding the questions/answers. The questions had single-answer or multiple-answer options. The questionnaire contained a total of 12 questions, designed in such a way as to encompass the proposed objectives: identification of dog owners, age of dogs, type of food used, quality of food, criteria underlying choice of diet, frequency of feeding, sudden change of diet, frequency of change, causes of change, mode of diet transition, clinical abnormalities occurring, duration of clinical symptoms, awareness of owners. food changes were made for a maximum period of 5 months. All data collected were transferred to Excel, Microsoft, where they were subjected to analysis.

RESULTS AND DISCUSSIONS

In Table 1 we can see that most owners are interested in providing their pets with good quality commercial feed 43%, most of them feed twice a day, they are interested in the quality of the feed first (32%), but also in the cost of the product (32%). Unfortunately, there is also a category of owners who do not care about the benefits or risks of poorly managed feed (11%). Most owners are feeding their animals twice a day (63%) and with dry commercial feed (55%). the majority of owners (95%) have changed the food, with only a small proportion (5%) feeding the same type of diet, as those with dogs under one year old or even under two months old, are not yet justified in switching to another type of food. A large proportion of owners switched to another type of diet at some stage of life (51%), moving from the junior to the adult or senior diet. Some owners are faced with animals that for some reason no longer eat their usual food or give the impression that they do not eat enough (37%). There is a further 23% who for various reasons make changes every few months or even every week (Table 2).

Table 1 Age of dogs and data about their nutrition (n=115)

		Dogs, n (%
Dog's age, years old	< 1	26 (23
	1-7	61 (53
	>7	28 (24
Food type	Dry food	63 (55
	Moist food	31 (27
	Homemade diets	15 (13
	Food scraps	6 (5
Commercial food quality	Super premium	38 (33
	Premium	49 (43
	Low cost	28 (24
Criteria for food selection	Cost	32 (28
	Quality	37 (32
	Vet recommendation	25 (22
	Advertising/ reading on the internet about dog nutrition	28 (24
	It doesn't matter	12 (11
Frequency of food administrations	Once a day	18 (16
	Twice daily	72 (63
	Free feeding	25 (22

In the "others" section (3%) owners change food for medical reasons (e.g. urinary, gastro, etc.). Regarding the way of changing the food, unfortunately, it is observed that a quite

high percentage of owners (43%) are not sufficiently informed and have made sudden changes in the dog's diet which have also led to digestive problems. The most common reason given for sudden feed changes was the unavailability of the food used, followed by the owners' desire to diversify their food type (Table 2). The clinical signs that appeared after the sudden change of food were diarrhea, loose stools, itching, or even lack of appetite (Table 3). Many of these problems were resolved in less than 3 days (42%), but there were some cases where clinical manifestations persisted between 3-7 days (31%) and even required medication (6%).

A percentage of 20 owners of the 79 dogs that showed clinical manifestations following the sudden change of the food given was not informed about the consequences that may occur or what is the rule in case another alternative is desired in the pet's diet (Table 4). Unfortunately, there are still many owners who research on the internet rather than talk to a vet. All these consequences can have serious repercussions on your pet's digestive system. A common target for acute hypersensitivity reactions to food is the gastrointestinal (GI) system (Gargano et al, 2021; Boyce et al, 2010). The range of GI symptoms such as abdominal discomfort, bloating, abdominal distension, flatulence, and diarrhea is pervasive and highly common. The clinical manifestations of food intolerance involve more than one organ or system (Gargano et al, 2021).

Table 2 Dietary change data, frequency of diet change and reasons (n=115)

		Dogs, n (%)
Changes made to the dog's diet	Yes	109 (95)
	No	6 (5)
Frequency of dietary change	every week	6 (5)
	once every few months	18 (16)
	at certain stages of life	51 (44)
	rejection of current food	37 (32)
	Others	3 (3)
How owners switch to the new diet	gradual change - 7 days	38 (33)
	gradual change - 2-3 days	29 (25)
	sudden change	43 (37)
	no changes in the diet	5 (4)
The reason for changing the food	food denial	19 (16)
	food diversification	29 (25)
	non-availability of regular food	33 (29)
	veterinarian's recommendation	31 (27)
	other reasons	2 (2)
	food has not been changed	1 (1)

Table 3 Clinical signs developed after switching to another diet (n=109)

		Dogs, n (%)
Clinical signs after switching to another diet	diarrhea	24 (22)
	loose stools	23 (21)
	lack of appetite	4 (4)
	vomiting	9 (8)
	itching	15 (114)
	other	4 (4)
	no clinical signs	30 (27)

Table 4 Duration of clinical manifestations and how owners were informed of the consequences (n=79)

		Dogs, n (%)
Duration of clinical manifestations	<3 days	33 (42)
	>7 days	16 (20)
	3-7 days	24 (31)
	after treatment	6 (7)
Information on possible consequences	Discussion with the vet	31 (40)
	Internet search	26 (33)
	Uninformed	20 (25)
	No answer	2 (2)

CONCLUSIONS

It is obvious that many pet owners are not aware of the serious effects that can occur following a sudden change of diet and do not know how this transition should be made.

Any change in the pet's diet should be carefully analyzed so that the risk-benefit balance is tilted towards benefiting and supporting the pet's health. Owners should not be influenced all the time by advertising or branding, as these do not always guarantee the quality of diets. Veterinary advice should be sought without hesitation so that a nutritionally balanced feed can be found, both in terms of nutrition, cost, and availability of the feed chosen. It is not wrong to search for information on online platforms, but reliable sources should be selected.

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