

The use of nutraceuticals in the behavioral medicine of the dog: preliminary results

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Abstract: Aim of this research was to assess the use of nutraceuticals (Zilkene®, Adaptil tablets®, Anxitane®, Calmex® and Calm diet®) in the behavioral medicine of the dogs, comparing the experience of veterinary behaviorists and general veterinary surgeons, by using an online questionnaire. One hundred and eighty six questionnaires were collected, 104 from veterinary surgeons and 82 from veterinary behaviorists.

As regards the situations in which the nutraceuticals are prescribed, these were situations of acute stress, such as those caused by fireworks, thunderstorms and travels. The veterinary behaviorists have usually prescribed the nutraceuticals in case of fireworks and thunderstorm phobia.

A good percentage of veterinarians was satisfied with the results obtained with the use of nutraceuticals and this satisfaction was also shown by most of the owners.

In conclusion, the use of nutraceuticals in veterinary medicine is now widespread and appreciated by both veterinary behaviorists and veterinary surgeons.

Key Words: dog; nutraceutical; behavior.

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Introduction

In recent years there has been a widespread use of nutraceuticals also in veterinary medicine. Nutraceutical is the association of the terms “nutrition” and “pharmaceutical” and is considered as a food or food product that can offer both health and medical benefits for the prevention and treatment of disease. The term was first coined in 1989 by Stephen DeFelice, founder and chairman of the Foundation for Innovation in Medicines (Sharif & Khalid, 2018).

Under this definition, nutraceuticals at least comprise medical foods, functional foods, and dietary ingredients. Medical foods are usually administered under the supervision of a physician for the management of a disease. Functional foods and medical foods are actually not distinct, except that functional foods provide additional benefits for decreasing the risk of disease or ensuring optimal health. Lastly, another type of nutraceutical, dietary supplements, often include multiple forms of ingredients, such as vitamins, minerals, herbs, amino acids, and other substances that are administered for health (Mao et al., 2018).

The most commonly used nutraceuticals are probiotics, prebiotics, dietary fiber, antioxidants, phytoestrogen, saponins, carotenoids, phytochemicals, fatty acids, phenolics, isoprenoids, lipids, proteins, and herbs.

Considering the health benefits, the impact of nutraceuticals offering several health benefits and an alternative to contemporary medicine in improving the quality of health is immense.

Aim of this research was to assess the use of nutraceuticals in the behavioral medicine of the dogs, comparing the experience of veterinary behaviorists and general veterinary surgeons.

Materials and methods

For the research a questionnaire on the use of nutraceuticals, which was distributed on-line to behavioral veterinarians and general veterinarians between January and December 2016, was used.

The questionnaire was formed by a first part about the use of nutraceuticals in behavioral problems, a second part, more specific, about the use and efficacy of every substance (Tab. 1) and a third part about the compliance of the dog owner.

Table 1. Commercial name and composition of nutraceuticals objects of the research.

Commercial name of nutraceutical	Composition
Zylkene®	Alpha-casozepine
Adaptil tablets®	GABA, L-theanine, L-tryptophan and B vitamins
Anxitane®	Suntheanine®
Calmex®	L-Theanine, L-Tryptophan, Piper Methysticum, B vitamins
Calm diet®	Alpha-casozepine, L-Tryptophan

Results

In the present survey 186 questionnaires were collected, 104 from veterinary surgeons and 82 from veterinary behaviorists.

In the Fig. 1 are reported the percentages of veterinarians who have prescribed the nutraceuticals during their clinical activity.

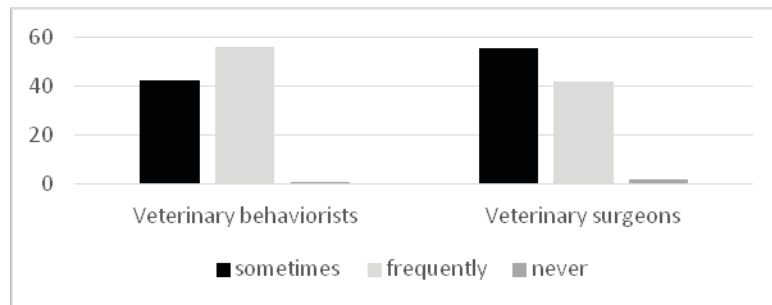


Fig. 1. Percentages of veterinary surgeons and veterinary behaviorists who have prescribed nutraceuticals.

In the Fig. 2 are instead reported the principal reasons that cause the prescription of a nutraceutical.

A high number of veterinary surgeons (66%) and veterinary behaviorists (59.5%) was satisfied with the results obtained with the use of these substances.

The percentages with which the nutraceuticals, subject of this research, were prescribed are shown in Fig. 3.

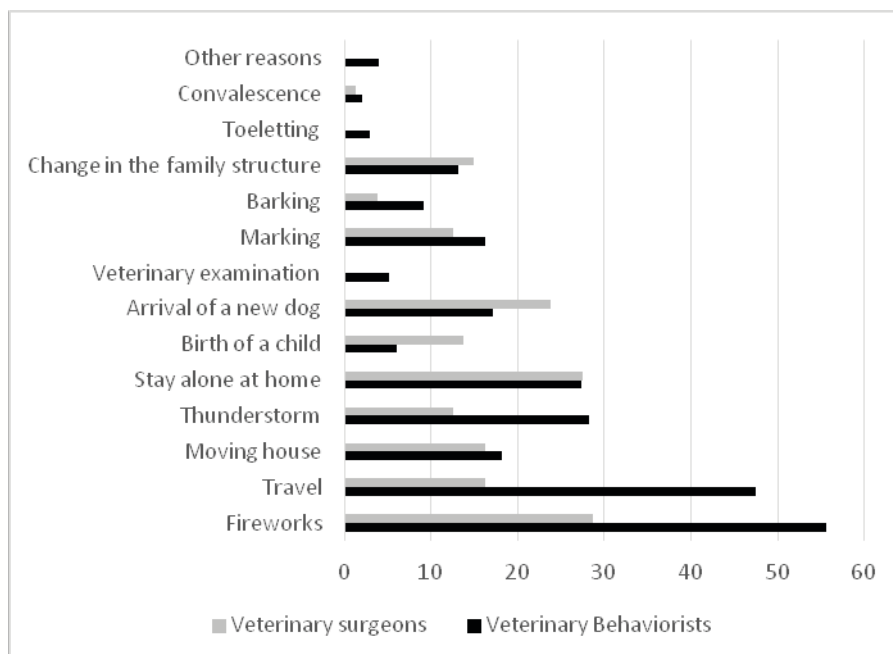


Fig. 2. Principal reasons for prescribing a nutraceutical.

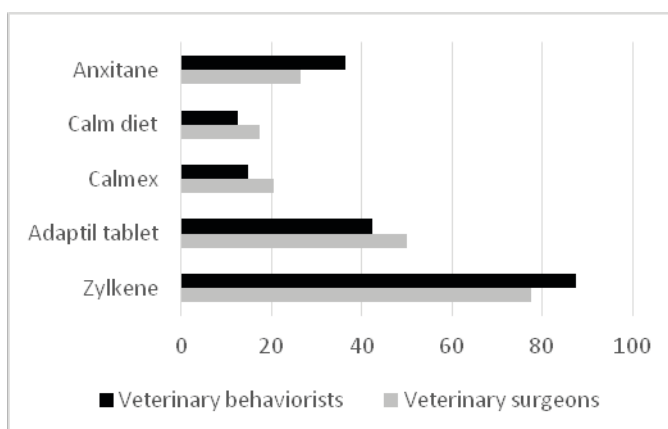


Fig. 3. Percentages of prescription of nutraceuticals.

As regards owner compliance, the proposal to use the nutraceutical was positively considered by the 79.4% of the clients of the veterinary surgeons and the 90.5% of those of the behaviorist veterinarians, also if the cost of these product was considered more expensive by 52.6% of the clients of veterinary surgeons and 75% of those of veterinary behaviorists.

Discussion

These preliminary data show that the use of nutraceuticals is widespread both among veterinary surgeons and veterinary behaviorists. These substances are therefore important means to facilitate the success of behavior modification therapies too. As regards the situations in which

the nutraceuticals are prescribed, these are situations of acute stress, such as those caused by fireworks, thunderstorms and travels. Moreover, the veterinary behaviorists particularly prescribe the nutraceuticals in case of fireworks and thunderstorm phobia.

As regards the choice of nutraceuticals, there were no differences between the two categories of professionals, with a more frequent use of some products that have been on the market for a long time (Zylkene®) or proposed for use in association with other substances (pheromones).

It is also important to underline how a good percentage of veterinarians was satisfied with the results obtained with the use of nutraceuticals and how this satisfaction was also shown by most of the owners.

In conclusion, the use of nutraceuticals in veterinary medicine is now widespread and appreciated by both veterinary behaviorists and veterinary surgeons. Research in this area is evolving, even with regard to long-known chemical compounds, such as tryptophan. A recent study has, in fact, shown that it is possible, also in dogs, to increase its bioavailability, by modifying the diet (Torracca & Casini, 2017).

References

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L'uso di nutraceutici nella medicina comportamentale del cane: risultati preliminari

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Sintesi

Lo scopo della ricerca è stato quello di valutare l'uso di nutraceutici (Zylkene®, Adaptil compresse®, Anxitane®, Calmex® e Calm dieta®) nella medicina comportamentale del cane, paragonando l'esperienza di veterinari esperti in comportamento e di veterinari generalisti, attraverso un questionario on-line.

Per la presente ricerca sono stati raccolti 186 questionari, 104 compilati da veterinari generalisti e 82 da veterinari esperti in comportamento.

I nutraceutici sono prescritti soprattutto dai veterinari esperti in comportamento in situazioni di stress acuto, come quelle provocate da fuochi di artificificio, temporali o viaggi.

Un buona percentuale di veterinari è soddisfatta dei risultati ottenuti con l'uso di queste sostanze e questa soddisfazione è mostrata anche dai proprietari.

In conclusione, l'uso dei nutraceutici in medicina veterinaria è largamente diffuso ed apprezzato, sia dai veterinari esperti in comportamento, sia dai veterinari generalisti.