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Use of Herbal Remedies to Control Pet Behavior (7-Aug-2000)

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Summary

The use of alternative remedies is rapidly gaining popularity for the treatment of a variety of ailments in people. Alternative botanical therapies include the use of herbal remedies and homeopathic preparations. In Europe, many alternative treatments are becoming mainstream. In the United States, herbal remedies are available as over-the-counter preparations and consumers are increasingly interested in their use for themselves and for their pets. The use of herbal remedies in veterinary practice is in its infancy. Homeopathic and other veterinarians are answering an increasing demand by pet owners for complementary or alternative treatments to conventional medicine. Conventional small animal practitioners are likely to be queried on the use of herbal and other alternative practices and should be prepared to answer basic questions on the use of the more popular products among them. Much research is needed before appropriate application, dosage, therapeutic benefit, and adverse effects in pets can be determined. The recommendation of herbal remedies for misbehaving pets should be deferred to veterinary behaviorists who have acquired a deeper knowledge of phytomedicine and feel comfortable in testing unconventional treatments with the pet owner's full cooperation. Full disclosure of the experimental use of these remedies in pets to participating pet owners would be imperative to any veterinary practitioner interested in veterinary botanical medicine for either behavioral or medical problems.

Introduction

According to the results of a recent survey, the use of alternative or complementary therapies by people in the United States may be as high as 34% [1]. Among those respondents who admitted to using unconventional therapy, 72% did not disclose this to their physician. Alternative botanical therapies (phytotherapy) include the use of herbal remedies and homeopathic preparations.

Interest in the use of alternative medicine is likely widespread, particularly by patients suffering from chronic illness such as cancer, arthritis, the acquired immunodeficiency syndrome, gastrointestinal ailments, among many others [1]. Although the demand varies in different countries [2], public interest in unconventional treatments is growing at an estimated annual rate of 20% [3]. In Europe, the market for herbal medicines is expanding at a staggering rate, with expenditures highest in France, Germany, and the Netherlands [2]. The regulation of practitioners of alternative medicine also differs between countries. In most countries, only registered health professionals may prescribe alternative treatments. In the United Kingdom, for example, the practice was virtually unregulated until 1994, when the World Health Organization mandated that homeopathic products may be purchased over-the-counter and quality control standards were imposed [2,4]. Also in 1994, legislation by the Congress of the United States allowed dietary supplements such as herbs to be freely advertised and sold. As long as a substance was not recommended for the treatment of a specific disease, the law stated that it would not be classified as a drug [5]. The impact of this law, along with widespread misgivings about long term effects of conventional medication and a movement toward self-directed health care by human patients, has spurred strong growth in the prevalence of supplement use [5].

Herbal remedies are also used for the treatment of psychiatric symptoms which include depression, generalized anxiety, chronic insomnia, and dementia [3]. Over-the-counter remedies with reputed

psychotropic effects include herbal remedies [3] and homeopathic preparations [6].

Overview of Herbal Remedies in Veterinary Practice

Not surprisingly, interest in unconventional treatment is also increasing among pet owners for use in their pets. The [American Veterinary Medical Association \(AVMA\)](#) has acknowledged alternative remedies such as veterinary acupuncture, veterinary massage and physical therapy, as well as veterinary homeopathy, veterinary holistic medicine, veterinary nutraceutical medicine, and veterinary botanical medicine (phytomedicine) [7].

In the current AVMA directory, veterinary botanical medicine is defined as "the use of plants and plant derivatives as therapeutic agents" [7]. The AVMA urges caution in the use of botanicals until further research is conducted and advises their application be restricted to veterinarians educated in their use.

Homeopathy or homeopathic medicine uses plants and plant derivatives, among other substances, in its practice as well. Homeopathy was founded by Samuel Hahnemann, a German physician who practiced in the late 1700's [8]. In the last 200 years, homeopathy has spread to many other countries and, although it declined in some countries, its popularity in Europe and the United States is currently being revived [9].

There are two fundamental tenets of homeopathy. The first tenet is the principle of "similars" which states that a patient's symptoms can be cured by a drug that produces the same symptoms of the ailment in a healthy individual. In a sense, its theoretical premise is similar to inoculation against a virus. For example, a vaccine contains particles of a virus intended to stimulate production of specific antibodies to defend against that particular viral infection. Homeopathic preparations are theorized to stimulate recovery in a similar fashion. The second principle of homeopathy is the repeated dilutions of specific homeopathic preparations, called "potencies". Despite these repeated refinements and minuscule concentrations of the final therapeutic preparations, the remedies are supposed to retain their biological activity.[10] The AVMA has defined veterinary homeopathy as "a medical discipline in which conditions in nonhuman animals are treated by the administration of substances that are capable of producing clinical signs in healthy animals similar to those of the animal to be treated" [7]. In addition, the AVMA cautions that only veterinarians versed in homeopathic practice administer its remedies given the potential for toxicity and pending results of continued research [7].

Botanical Preparations in Veterinary Behavior Practice

Among the botanical remedies available without prescription are the Bach Flower Essences®, first prepared in the 1930's by a British physician named Edward Bach. He isolated 37 flower essences and a 38th essence made from the water of a natural spring with apparent healing effects. Bach observed that 5 of his "essences" were of particular value. He prepared a cocktail of 5 of these floral extracts (Rock Rose, Star of Bethlehem, Impatiens, Cherry Plum, Clematis) known as the Rescue Remedy®. This substance is marketed as a "natural reliever of everyday stress...proven to be as helpful with animals as it is with people" [11]. This claim is unfounded by published data.

Rescue Remedy® is recommended by The Bach Centre in England "for an immediate calming effect in any stressful situation" and for a variety of emotional or behavioral problems. These include: excessive vocalization (barking in dogs, hissing in cats), stress due to being left alone, shock, trauma or mistreatment, anxiety when adapting to new surrounding (new baby, new home, loss of owner or companion), fear of loud noises and lightning, and visits to the veterinarian [11]. Walnut and chestnut bud, among the Bach flower essences, are recommended for the treatment of animals that do not get along, car sickness, cystitis caused or aggravated by fear, fear, grieving, kenneling, and lack of confidence [12]. Anecdotal reports regarding the use of these substances suggest their potential benefit in the control of urine spraying in cats, ease during euthanasia, and aggression between pets (author's personal communication with clients who have autonomously used this remedy). However, these promises remain unsubstantiated by controlled clinical trials in pets.

In people, Rescue Remedy® is recommended in any situation that causes anxiety or distress such as stress at work, air travel, interviews, arguments, school exams, childbirth and child care. It is suggested during auto accidents, traffic jams, and sudden bad news of any kind. Despite these claims, the current sparsity of published data in the medical literature [5] has not discouraged the rise in popularity of these floral remedies in either human or veterinary medicine.

The majority of botanical treatments are far older than the floral remedies described above. Indeed, Chinese and Indian traditional medicinal remedies are many centuries old. Native American and other indigenous peoples worldwide also became familiar with the plants in their immediate environments and incorporated them in their ceremonial and medicinal practices.

Ethnobotanical herbs such as chamomile, ginkgo, kava, St. John's wort, scullcap, lemon balm, ginseng, and valerian are associated with a growing number of clinical studies to investigate their therapeutic value for a variety of psychiatric illnesses in people [3,5]. Products containing these herbs are available at pharmacies and health food stores across the United States. However, preparations vary widely in their concentration and in their recommended dosage for people, and side effects as well as drug interactions are becoming apparent [5]. There are no established dosages for use in nonhuman patients.

As of the writing of this paper, a single published report of the use of herbal remedies for the control of emotional or behavioral disorders in pets indicates the benefit of a lemon scented aerosol in a collar used to control nuisance barking in dogs [13]. The author must concur with the AVMA's current guideline [7] that caution must be used in recommending these substances for use in the control of pet behavior problems until more facts emerge. Notwithstanding, it is interesting to speculate upon the application of several of the ethnobotanical herbs to the practice of veterinary behavior. For instance, ginkgo biloba has been shown to improve memory and concentration in people affected by Alzheimer's Disease and multi-infarct dementia [14]. Ginkgo may prove to be beneficial to dogs diagnosed with Canine Cognitive Dysfunction Syndrome and to geriatric cats with excessive vocalizations with no identifiable cause. Valerian root is used as an hypnotic and anxiolytic. These effects have been attributed to its facilitation of the neurotransmitter gamma-amino-butyric acid (GABA) [15]. Valerian, among others, could be useful to control a multitude of anxiety related or fear induced clinical problems such as fear of thunderstorms and other noise phobias, as well as car travel and separation anxiety.

Homeopathic Preparations in Veterinary Behavior Practice

Homeopathic preparations are used by veterinary homeopaths to treat problems ranging from cancer to motion sickness. A growing library of veterinary homeopathic, naturopathic, and holistic texts describe the use of plant derivatives which include cocculus, ignatia, aconitum napellus [16], belladonna, nux vomica, liliun tigrinum, chamomilla, and rhododendron [17]. According to homeopathic guidelines, aconitum is the prescribed remedy for fear, hysteria and panic; belladonna, gelsemium, nux vomica, are all treatments of fear of thunder and sudden noise; irritability is treated by chamomilla and nux vomica, and feline urine spraying responds to cantharis and staphisagria [18]. An animal that is "difficult if left alone" is treated with phosphorus and pulsatilla, and arsenicum is for an animal that "panics if left alone" [18]. Although the distinction between these two symptoms is unclear these remedies refer to the treatment of separation anxiety. It should be noted that these references do not present precise dosages derived from controlled studies for use in either cats or dogs.

Based upon the findings of multiple reviews and meta-analyses of homeopathic preparations, the concern remains that no clear therapeutic benefit has been demonstrated [8,10,19]. Furthermore, one does not require advanced homeopathic education to recognize the potential toxicity of such ingredients as arsenicum, belladonna, or mercury in homeopathic dilutions. As of the preparation of this article and to the author's best knowledge, no pharmacologic or toxicologic data, or animal studies are available for homeopathic drugs. Side effects of homeopathic remedies have been reported in human patients [20]. Despite the growing popularity of these drugs for use in pets, there are no data to support their benefit in the treatment of misbehaving pets. Although the therapeutic value of homeopathic preparations in veterinary medicine remains anecdotal, their medicinal properties may yet be proven valid.

Conclusion

The magnetism of a product label indicating that its contents are "natural" cannot be ignored in today's consumer market. However, "natural" does not guaranty that a product is either beneficial or safe. Side effects have been reported for some botanicals, for example, St. John's wort cause photosensitivity in people [21] and in other animals [22]. Recently, the over-the-counter dietary supplement 5HT (5 hydroxytryptophan) sometimes called Griffonia seed extract was reported to cause toxicosis in 19 of 21 dogs that accidentally ingested from 350 - 500 mg/kg. Three dogs died [23]. Currently, there are no standards for the control of product purity for botanical preparations and no data on which to base the appropriate dosage of these remedies. Product labels generally do not indicate the most common side effects or known drug interactions nor are they required to do so. Nonetheless, many of these herbal preparations show promise as effective medicines.

Human beings have used plants for medicinal and ritualistic purpose since the dawn of time. Indeed, until the middle of the 20th century, plant extracts were routinely used in the compounding of medications prescribed

by physicians [5]. The use of plants is the oldest and, in some parts of the world, continues to be the most important form of medicine. Ironically, phytomedicine is now deemed "alternative" in comparison to the relatively new and "conventional" pharmaceuticals of Western medicine and veterinary medicine. However, it should be noted that among these conventional medicines are atropine, morphine, yohimbine, digitalis, ivermectin, and penicillin, and many other drugs, all of which are derived from plant life. In an age when the survival of the rain forests, for example, and all the secrets contained therein is threatened, the promise of nature's healing powers is yet to be fully realized or appreciated. It seems more than plausible that natural remedies may well hold miracles, but nature may be hazardous, too.

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