

CBD in veterinary medicine uses in daily practice

Questions and answers

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1. If synthesis of endocannabinoids occurs only when necessary, would it be a problem to administer them preventively?

No. What we do is to provide the body with a reservoir so that when a problem arises you already have the molecule there and you do not have to wait for the body to produce it, regardless of whether it is also synthesized later.

2. I would like to ask if the accidental consumption of a cannabis plant, having THCa, would be harmless to the animal? In case the plant is dry, will THCa have been transformed into THC and will it be dangerous? or is a heating process necessary (oven ...)?

The plant, when sown and hydrated, will be harmless as it has not become THC. If it is not well watered or dry, if it's summer and it receives the sun directly, then there will be THC conversion and therefore it can be harmful. The sensitivity to THC is much higher than to CBD, it is a much more potent molecule, for better and for worse. The recommended doses are much lower than CBD. Remember also that flowers are the part that contain the majority of phytocannabinoids in Cannabis plant.

3. Is it true that depending on which receptors (CB1-CB2) fibrosis can be stimulated for example in case of an acute necrotizing pancreatitis? Could it be contraindicated to use a CB1 or CB2 type? And in general, are there any contraindications to using a broad-spectrum type of CBD versus a more selective one towards CB1-CB2?

It is not true that the receptors directly stimulate fibrosis, but it has been seen that stimulation of CB1 receptors can favor liver fibrosis under certain conditions. In pancreatitis specifically (studies done in humans) they favor and help prevent fibrosis from occurring and also to control the development of necrotizing pancreatitis and other types.

4. How does CBD work in behavioral problems (aggressiveness, separation anxiety)? Would it be advisable to consider it as an alternative to other more CNS depressant drugs?

Yes of course. All animals with anxiety problems can be handled without pharmacological drugs such as fluoxetine by using CBD. Administer in the correct "TIMING": if the problem is accentuated at night (e.g., sleep disorders), administer in the evening. If the problem is during the day (e.g., separation anxiety) administer in the morning, since normally the peak of action is during the first 8 hours in oil-based products.

5. If the dose is for example 1mg/kg 3 times a day, when switching to a slow-release product, the dose would also be 1mg/kg once a day or would it have to be increased to 3mg/kg?

Still is 1mg/kg per day. HEMDIOL extends the effect of the administered dose for 24 hours

6. How long can it take to achieve the desired effect or benefit?

It depends. In geriatric or anxious animals, the effect can be achieved the same day. In animals with chronic pain, osteoarthritis, pain associated with tumors or in palliative care, we can wait for a week or even 10 days to begin to see a noticeable effect.

7. Use in birds, what effect does it have?

The colleagues from South America are testing it in birds. What they convey is that, to begin with, they usually need a little higher dose than dogs, although it depends on the bird species. Between 1-2.5mg/kg would be a correct dose. For parrots and cockatoos, for example, in itching problems, they recommend using up to 4mg/kg (there are researchers who recommend up to 8mg/kg). The main problem is that they metabolize the molecule faster. It should be used about 3/4 times a day. The effects are the same as those discussed in dogs and cats. All vertebrates have ECS, and even invertebrates (except insects).

8. Would it be useful for fireworks fear?

Yes, but we must adjust the dose. As it has no adverse effects or any risk, the week before we can adjust to the minimum effective dose. We can increase up to 2mg/kg (cats up to 4mg/kg).

9. If we have been administering it for some time, and we need to withdraw it, should we do it gradually?

No, it does not generate addiction and therefore does not generate dependence, nor are there adverse reactions when withdrawing it at once.

10. I didn't understand if the initial dose increase is by dosage or per number of intakes

You do not increase the number of intakes, but the dose per day. The intakes are those recommended by the manufacturer.

11. Is it recommended in acute pain or only in chronic pain?

It is recommended in both. What happens is that it is easier to manage in chronic pain, due to the need to titrate CBD based on dose / effect. In acute pain, THC works well, but only 0.2% is allowed in these products. In acute

pain we can use CBD at medium doses to try to control it.

12. Is there any effect with the simultaneous administration of monoclonal antibodies (Librela)?

We have no information, however I can tell you that Librela is not metabolized via the Cytochrome P450, so there should be no interaction with CBD. It may be a way to reinforce the effect of Librela as an adjuvant in older dogs, in addition to improving the usual signs in geriatric animals.

13. Can it be used in cases of meningoencephalomyelitis, to control clinical signs?

Yes, in fact, it works very well. It is a pity that THC cannot be used, but in any case, all products with full spectrum would be good to reduce inflammation and give neuroprotection in that pathology. CBD is specifically neuroprotective and anti-inflammatory in neurons.

14. What chemotherapeutic drugs are enhanced?

Cisplatin and Doxorubicin effects have been shown to be potentiate as well. Cyclosporine is metabolized by the same pathway as CBD, therefore, it can increase the time of cyclosporine in the body and achieve a greater effect with the same dose.

15. What does "needs titration" mean?

Adjust/increase doses until you find the minimum effective dose. We will handle the products based on dose/effect just as we do with other medicines such as for example antiepileptics.

16. For epilepsy, what happens in the case of using imepitoin (Pexion) at the same time?

Imepitoin does not have hepatic metabolism, so it does not potentiate or interact with CBD. It can be a good adjuvant treatment, but only as a booster in treatment-refractory epilepsies or if we cannot increase doses of Pexion.

17. Can it be used in feline hyperthyroidism?

Perfectly, as it helps to control many of the side effects and also helps hormonal regulation. As there is also no problem with kidneys, since it is metabolized by liver, it is a perfect option.

18. In case of dermatitis or any other disease for which there is already a treatment, at what point do you choose to start with CBD?

Before giving corticosteroids or more aggressive drugs. CBD can be an adjuvant to conventional treatments to rebuild the homeostasis of the body. In humans, there is the ECS deficiency syndrome where there are many secondary pathologies associated with this imbalance, it does not work as it should and external phytocannabinoids help to rebalance it. In any disease it would be advisable to use it, but when the established treatment does not work at all or when it gives secondary problems as in the case of epilepsy with phenobarbital or KBr and liver enzymes or NSAID gastritis in geriatric dogs.

19. How long can CBD extend life expectancy in cases of metastasis?

We do not know; it depends on each case. What has been shown is that in both in vitro and in vivo studies, it can eliminate cells and prevent expansion by producing apoptosis of cancer cells, but we cannot predict how much.

20. I have a healthy adult dog who is the closest thing to a child with hyperactivity, the owner is a canine educator, and he would like to be able to lower the "intensity" of his dog to try to help him, do you think CBD could help? He has tried CBD drops but didn't notice anything.

Yes, of course. In this case you have to look at what concentration of CBD the product had and what dose he was administering to the animal. It would also be necessary to look if it is full spectrum and not just a CBD isolate.

21. Can there be interactions with trazodone?

These drugs are highly dependent on CYP3A4 enzymes in the liver. When taken with CBD, concentrations of this medication can increase, leading to an increased risk of side effects and increased chances for a drug dependency. Therefore, if you use it in combination, it is a good way to reduce doses of the drug to also reduce its side effects.

22. Regarding to the use of CBD in epileptic dogs. When lowering phenobarbital, as is normally done, blood levels should be monitored. With the use of CBD can these levels be below the therapeutic level in the controls?

There are some studies that say that levels are maintained in blood, but there are some that say that levels increase. CBD reduces the metabolism of phenobarbital and therefore its elimination, therefore, increases blood levels. Apart from this, I do recommend reducing phenobarbital, since in addition to enhancing the effect of phenobarbital with the same dose, you also provide an anticonvulsant effect with the same CBD. We can reduce little by little and month by month to see the optimal dose in combination with CBD. The dose to control epilepsies is 1.5 to 3mg / kg, although we can reach 4mg / kg if required by a particular case.

23. How do we dose in mg with a product like Hemdiol that does not say the g of CBD that are in the product or the other more widespread that is the Cronicare that has 10% concentration over 100 ml? I say this because to go from 0.5 to 2 mg / kg with these products I would not know where to start

In any of the authorized product for animal feed will you find this information. However, we can tell you that,

now, administering half a capsule we have obtained good results in animals of up to 5 kg.

24. Are there any contraindications or precautions when administering oral and topical CBD?

No, CBD has been tested at doses 60 times higher than recommended and no adverse effects have been seen

25. It is not clear to me why it has no psychoactive effect.

Because it contains practically no THC, which is the psychoactive molecule of the cannabis plant.

26. Is hemp flour the same as hemp protein?

Hemp flour contains the entire plant except the seeds. Hemp protein is obtained only from seeds.

27. What is the difference between hemp oil and hemp flour in terms of effectiveness?

If they are full spectrum, none. It depends on the mg they contain of phytocannabinoids. Hemp oil already goes on an oil base, hemp flour without microencapsulating in fat, is less bioavailable.

28. What is the difference between this product with hemp flour and others made with cannabis oil?

The process of obtaining and regulating them. Normally oils are obtained by processes at high temperatures, in addition to the fact that most of the time isolated phytocannabinoids are added. There are oils that are well designed and contain the "full spectrum". However, HEMDIOL is purely the extract of the plant, obtained with a cold extraction method and eco-friendly processes. It is obtained from the whole plant and is allowed to be used as complementary food in animals. The oils, at the moment, are only for topical use.

29. From what I've been reading, is better assimilated in oil than in capsules, is that true?

It depends on whether or not the capsule carries fat. The absorption improves a lot when mixed with fat, 3 to 6 times, so you have probably read that the tablets are absorbed worse. However, HEMDIOL is not a tablet, but microcapsules that wrap the active ingredients in fat. This technology allows, although HEMDIOL has lower doses than recommended, an effect just like conventional oils.

30. There are no harmful side effects that occur in healthy or sick animals

None.

31. In cases of epilepsy treated with Keppra, is it convenient to remove the Keppra before using the CBD?

There is no interaction, so you should not remove it. You can reduce it because the animal has improved, but not because there is any risk.

32. Compared to other products based on L theanine, pasiflora.... With a certain anxiolytic effect, is it more potent?

With L theanine I have no experience. Pasiflora works very well and in other animals it is not as effective. What I have done is combine them.

33. For cats, does it generate a synergistic effect with anxiolytic products such as gabapentin or dexmedetomidine?

Do not stop gabapentin all at once but you should stop administering maximum at 2 or 3 weeks. CBD combined with gabapentin can produce soft stools or polydipsia.

34. What kind of side effects can they have at high doses?

Drowsiness, appetite and very rarely, softening of feces.

35. What dose of Hemdiol corresponds to the doses you recommend 0.5-1-2 mg / kg?

HEMDIOL carries 5mg of phytocannabinoids per capsule, therefore, we can only treat animals when they require microdoses or low doses. However, the technology we use improves its bioavailability and therefore, with only 5mg we have obtained positive results in dogs of up to 20kg.

36. It is safe to use in IBD? Why?

Yes, there are mainly CB2 receptors throughout the gastrointestinal system, to regulate the immune system. Therefore, is safe to use in any problem of immune/inflammatory origin such as IBD.

37. Being anti-inflammatory and neuronal protective can the product be used in case of any neurological process? Nerve paralysis, vestibular syndrome, etc?

Of course. There is some study that even talks about neuronal regeneration, although I dare not go that far. There are articles that demonstrate its neuroprotective potential.

38. I have a 13-year-old patient with Cushing, they have started giving him Hemdiol 3 days ago and has develop

aggressive behaviors of growling at the owners and others, they have withdrawn the Hemdiol and will see if it improves, Hemdiol gives that type of adverse effect? Can it have something to do with it?

I do not see a relationship, what has been shown is an aggressiveness associated with Cushing's Syndrome. It may have some onset of dementia and therefore are two factors that make sense as a cause of this aggressiveness. However, we can remove it and see what happens. We should look at how we administer the product and if we generate aggressive reactions and when by the way of administering and not by the product itself.

39. Use in horses? One older and one allergic, what doses are being considered?

They usually work with 200mg/horse and 400mg/horse. Can be used twice a day in very acute cases.

40. Can Hemdiol be used in gingivostomatitis in cats? And if yes, how?

Absolutely!

Gingivostomatitis might be one of the main indications of cannabinoids for cats.

You can either use Hemdiol alone, or as a support for their current medications.

Remember that it works very well with NSAIDs (Meloxicam), but you have to be careful if you are also using Gabapentin or opioids.

When working with cats, you must aim for at least 3-4mg/kg but start at a lower dose (0.5-1mg/kg) and slowly increase it until you achieve the proper dose/effect.

41. If I understood well, CBD reduces THC effect, are we talking about psychoactive effect or all effects? if we use a product which have both CBD and THC aren't then THC effects reducing?

THC is a partial agonist of CB1 receptors and CB2 receptors. When it interacts with CB1 receptors, which are in the brain and in the CNS, it shows a psychoactive effect.

CBD is also a partial agonist of CB2 receptors, but a negative allosteric modulator of the CB1 receptor, which means that is capable to change the shape of them avoiding the THC to bind the CB1 but being free to join the CB2 receptors which are mainly "Immuno" receptors.

So CBD ONLY reduces or counteracts the psychoactive effects of the THC.

42. The doses given in the presentation are for a full spectrum product or CBD extract?

Not sure of what you mean. Any Full Spectrum product is an extract from the plant, as well as any other cannabinoid or cannabinoid product.

The cannabis plant contains around 500 different molecules and only around 145 are cannabinoids. A full spectrum product is a product that contains different cannabinoids plus other molecules from the plant like terpenoids, flavonoids, CH, etc.

Usually for animals, and specifically in Hemdiol, the main cannabinoid is CBD and the amounts of other cannabinoids are really insignificant if any.

The doses given in the presentation is for CBD and in the case of Hemdiol mg of the phytocannabinoids it contains which are 5mg CBD/CBDa

43. Is there anything else we should try if it hasn't worked in the epilepsy patient? What went possibly wrong?

Different product, dose, are there non responders in certain types of epilepsy? I am talking about idiopathic epilepsy.

It is a bit difficult to know without having all the details, but I would say that it was probably due to the dose, even though it could be related to other reasons.

This is not a miraculous medication, and we are talking about living beings. So yes, there certainly could be some animals not responding to the treatment with CBD, but I haven't had such experience so far.

44. Were the doses in the presentation daily doses?

I usually recommend the BID, but with a product like Hemdiol, and due to its particular technology with micro-granules, you can use them once a day.

Other information of interest:

Drug interactions: Do drugs need to pass through the p450 to be removed or activated? CBD reduces the metabolization of the drug into the active form (e.g. Fluoxetine). In the case of phenobarbital, it is active as such and needs p450 to be removed. CBD interacts with it so the active molecule increases in the blood. Therefore, it does enhance the effect of phenobarbital and we can reduce its dose obtaining the same effect.

It is true that within the full spectrum there are terpenoids, which enhance each other actions, although there is little amount of them. One of the terpenoids is Limonene. It works very well for shy or fearful / scary animals, but this same component, in an animal with some aggressive behavior, could enhance it. In the USA, CBD-A is not recommended for anxiety states that are directly related to aggressive behaviors.