REPORT ABOUT BRAVECTO AND FLURALANER (the active ingredient)

By Dr. Frauke Garbers, biologist (4 pages) (Translation September 28, 2016)

Link: http://www.artgerecht-tier.de/kategorie/hunde/beitrag/bravecto.html

Websites: www.isbravectosafe.com / www.istbravectosicher.de / www.isbravectoveilig.nl

Facebook Groups:

IS BRAVECTO SAFE / DOES BRAVECTO KILL DOGS / IST BRAVECTO SICHER / IS BRAVECTO VEILIG

Dr. Frauke Garbers biologist:

Conservative flea and tick control in the form of spot ons are apparently boring. An innovation must be found: The sensational "chewable tablet" for dogs against ectoparasites such as fleas and ticks - lasting toxic load of the dog guaranteed!

Why so cynical? Let's see more closely:

This new veterinary medical product containing the active substance fluralaner, sold by the company Intervet Germany GmbH, a subsidiary of Schering-Plough (MSD/MERCK) Animal Health, kills fleas (Ctenocephalides felis) and ticks (Ixodes ricinus, Dermacentor reticulatus, D. variabilis) immediately and continued for 12 weeks; the brown dog tick (Rhipicephalus sanguineus) immediately and continued for 8 weeks. For optimum control of tick & flea treatment therefore should be carried out every 3 months.

The brown dog tick is mainly widespread in southern Europe. Through introduction, it can also occur north of the Alps. She is endemic, however, only in heated premises such as apartments, shelters etc..

"Fantastic! The problem of ticks and fleas is finally resolved, "Many will say with a sigh of relief. But be careful: apparently things are not so simple.

The way the medication works:

FIRST of all the active ingredient "Fluralaner" (Bravecto) works systematically against fleas and ticks. That is to say, the active substance is spread via the gastric and intestinal mucosa and then spread through the bloodstream into the rest of the body of the dog. The parasites must get in touch with the Fluralaner through a blood meal from the host (the dog) . Fleas are then killed within eight hours and ticks within twelve hours.
And here lies the problem. One does not achieve what one wants to achieve: During the feeding of the parasite on the host "(.....) the risk of disease transmission by the parasites can not be ruled out."
This is what the manufacturer says on the medication leaflet (English):

"Special warnings for each target species:
Parasites need to start feeding on the host to become exposed to fluralaner; therefore the risk of the transmission of parasite borne diseases cannot be excluded."
(in German: Www.msd-tiergesundheit.de/products/bravecto/bravecto.aspx).

But isn't that just exactly what it's all about! ....

SECOND Bravecto has no repellent effects. To reach that goal too, one will need a second medicament, and thus a further, unnecessary toxic exposure to the dog.
You may wonder: A new agent for animals is so much overestimated, but it has no repellent characteristics against fleas and ticks, and offers no protection against the transmission of pathogens.

Solution in the vision of the pharmaceutical lobby presumably will be to create a new "protective inoculation." This means additional health risks for the dog, and secure sources of income for veterinarians and pharmaceutical industries. Apparently deliberately the trust and gullibility of animal owners is exploited to gain a business advantage.
A perfidious approach!

THIRD, the long-term operation of Fluralaner because of certain pharmacokinetic characteristics (pharmacokinetics = joint operation processes that a drug causes in the body):

*** The active substance is stored mainly in the adipose tissue, followed by the liver, kidneys and muscles**
*** Relatively slow decrease in the plasma (half-life 12 days)**

The active substance then remains in the body of the dog for a long time. Dogs with overweight or obese dogs are more at risk of toxic accumulation than dogs with normal weight (as in humans).

If the agent - as recommended - is repeated every three months, this could lead to cumulative effects. The body can't secrete the stuff, liver and kidneys have to work at full speed constantly. Hardly an opportunity to detoxify. Instead there's the risk that on the long term liver and kidney damage may occur, with associated symptoms. In this sense, the dog actually is the victim!

A toxic load of the brains in the dog with Fluralaner can not be ruled out clearly. Fluralaner has an inhibitory effect on the nervous system of fleas and ticks, with which it blocks the nerve impulses from the cell membranes. The parasites become paralyzed and die from it.

IS IT REALLY ONLY TOXIC FOR PARASITES?

More precisely: Fluralaner possesses a so-called affinity to GABA (y-aminobutyric acid) and glutamate receptors. With the "activation" of these receptors, the chloride channels are opened in the cell membranes of nerve and muscle cells. The chloride-influx into the cell is increasing, and the "hyper-polarization" (= desensitizing of the nerve cell, and so it gets less susceptible to neurotransmitters) prevents further stimulation of the nerve cell (excitation). This process includes all the parts of the body (limbs, respiratory tract, etc.).

These receptors exist only in the brains of the dog (and all other mammals). GABA receptors are widely distributed in the central nervous system (brains and spinal cord), the

neurotransmitter GABA makes up about 30% part of the total amount of these neurotransmitters. It is the major inhibitory (inhibitory) neurotransmitter in humans.

An intact blood-brain barrier protects the central nervous system - and therefore also the GABA receptors - against toxic substances or compounds. Wether Fluralaner can not pass through the blood-brain barrier is not really clear.

Anthelmintics (anthelmintics) with avermectins as active substance, apparently works with the same principle as Fluralaner. They also inhibit the nervous system as a result of their affinity with GABA-receptors.

So here are some quotes about how "avermectins" work:

Although the intact blood-brain barrier in vertebrates is hardly permeable to avermectin, nevertheless it also strengthens the GABA-ergic processes with neurons in the brains of mammals .... "according to a thesis at the University of Munich in the year 2011.
(Http://edoc.ub.uni-muenchen.de/13502/1/Schnerr_Cornelia_U.pdf).

In plain English: While an intact blood-brain barrier in the brains of mammals would have to be hardly permeable, when giving these agents enhanced reactions in the GABA-specific nerve cells occur.
Obviously the blood-brain barrier is not that completely impermeable!
For example birds (especially finches and budgerigars) respond to these agents with "fatigue".

For dogs with the so-called MDR-1 defect (for instance Collies etc.) a small amount can already be lethal!
(Http://www.pan-germany.org/deu/~news-1220.html)
"Because GABA is also found in the brains of mammals, the binding to GABA receptors, is also considered as the cause of the toxic effects of avermectins ..."
(Http://borna-borreliose-herpes.de/allgemein/wurmkurenwirkstoffe.htm).

Avermectins are lipophilic (fat-loving) compounds, so "... avermectins can spread through the membranes of each intact blood-brain barrier."
(Http://www.vetpharm.uzh.ch/reloader.htm?clinitox/toxdb/SWN_022.htm?clinitox/swn/toxiswn.htm).
Cell membranes, as is known, mostly consist of fat molecules!

THE RISK OF ACCUMULATION (the stacking of toxins when used frequently)

Interesting, in this context, is a publication on avermectins (http://www.pan-germany.org/deu/~news-1220.html) by Dr. Andreas Becker.

He mentioned neuro-degenerative changes (deterioration of the function of nerve cells) in the brain stem and the small brains of beagles in a 53 week study with avermectin!
Long term damage can therefore also not be excluded. And that goes for both avermectins (anthelmintics, ed.) and isoxazolines (Fluralaner), both of which operate on the same pharmacokinetic principle.

The statements about the possible side effects of these drugs are supposedly based on short-term experiments, as mentioned. This way the acute toxic load is observed, but not

the cumulative effects (= stacking effect with frequent use of the drug in the dog).

As referred to by the Dutch toxicologist Henk Tennekes, the "Rule of Haber" is applicable here:

THE TOXIC EFFECT DEPENDS ON THE PRODUCT, THE CONCENTRATION OF THE SUBSTANCE AND THE EXPOSURE TIME (when no elimination or reduction of the active substance takes place).

Which means, when a lethal amount of poison is 365 grams per day, the death also occurs after one year at a daily intake of 1 gram.

For the authorization of the avermectin "Ivermectin" by the EMA (European Medicine Agency) only the acute toxicity was considered. In a 53-weeks test on beagles with the avermectin "Eprinomectin" already 1994 neurodegenerative changes in the brain stem and the small brains were observed. "
(Http://www.pan-germany.org/deu/~news-1220.html).

One might ask, why Bravecto will not be sold as a "Worm-agent" (anthelmintic). More profit van be created with two separate, antiparasitic agents.

A few words about the international significance of Fluralaner.

Medicines like "valdecoxib" and "Parecoxib" as selective "cyclooxygenase inhibitors (non-steroidal rheumatica) belong to the same class of 'drugs' as Fluralaner, namely the" Isoxazolines ".
"Valdecoxib" is no longer permitted since 2005. "Parecoxib" is withdrawn from the market in Switzerland for safety reasons, this appeal is not permitted in the USA. In Germany Parecoxib is still on the market. From all this every reader form his / her own opinion ....

Dr. Frauke Garbers, biologist
(Translation: Mike van de Sande)

Sources:

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