

**XVIII Symposium of G.I.R.I.
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REVIEW OF VETERINARY PUBLICATIONS

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The veterinary practice and research represent a very promising field in the context of homeopathy proving, since the placebo effect is almost null and there is less ethic troubles involved in veterinary trials than in the human ones. However, very few veterinary trials that were carried out until nowadays consider the main established quality parameters for clinical trials, such as: randomization of enough number of animals, parallel placebo treated group, double-blind, crossing-over and wash-out protocols, control of environmental and individual variables, well defined statistical analysis, etc. (1), what impairs the impact of data as *proving assays*.

The need of more qualified studies is fundamental, but some particular aspects of homeopathic veterinary universe must be taken into account before establish guidelines for further researches. Herein, some of these troubles and particularities found in the available literature are discussed, since they are necessary elements to build good strategies for clinical veterinary research:

- a) *Criteria for the choice of medication:* although the similia principle is, in general, the basis of the choice, an objective and valid method must be recommended, since any mistake in this step of the protocol can compromise the results. It is seen in the literature, the use of radiesthetic methods for this purpose (2). Is this a validated method? Could be the repertory classification the method of choice? A list of the selected symptoms should be shown in the paper? In this case, the use of a repertory could also be a good method for defining the inclusion criteria (3, 4, 5). Considering the studies about nosode, a very controversial range of results is seen in the literature, but systematic criteria for planning these studies are lacking. Some crucial questions should be considered: is its prophylactic use - as a vaccine - valid (6)? Is the association with constitutional medicine or allopathy a good strategy (7, 8)? What kind of nosode is more effective: from individual or collective sources (9, 10, 11)?
- b) *Criteria for the choice of the potency:* there is no objective method to set the potency to be used in an experimental protocol. Most of the studies are based on the practice and individual experience of the clinician. In general, higher potencies are used to reach chronic / mental disturbances and the contrary is valid to acute / organic troubles (12, 13, 14). Is this really valid?
- c) *The trouble of the wash-out and crossing-over protocols:* it is known by the clinical practice, that the use of a *similimum* can produce a complete equilibrium of the patient for several months (9, 10), but the use of a wrong medication is able to produce no change at all. So, in an experimental protocol, the time of observation must be very long, to be sure that the effect of the treatment is actually over. In one study about *psichogenic dermatosis* in dogs, animals were observed up to one year after the end of

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the treatment (15). However, this study has taken six years to be concluded that makes it too much expensive. Maybe the *semi-crossing over* could be a solution: after a sufficient primary time of observation, codes are broken and placebo treated animals are effectively treated for a pre-determined period of time (3).

- d) *The trouble of statistical analysis*: As the homeopathic treatment can develop a very large range of responses according to the previous state of the patient, the heterogeneity of outcomes and standard deviations are very common. Thus, they often do not fit Gauss distribution and the need of non - parametric methods is very frequent. Also, since the effect of homeopathy is to recover the normality, the organic equilibrium, one must consider that, in an experimental condition, the lack of statistical significance in the results of a homeopathy treated group, when compared to control, in addition to a significant difference in relation to “positive” control group, treated with a drug that is known to induce a certain effect, can be the better evidence of the phenomenon studied (16, 17, 18). In an experimental agronomical study, long term analyzed data were submitted to a complex statistical analysis to demonstrate a minor variability among results in treated than placebo group, showing the rational of the effects in a wider point of view, not possible to be shown in short term studies (19). All these particularities point toward the need of a deeper review of statistic methods applicable to homeopathic trials.
- e) *Veterinary Pathogenetic studies*: Some symptoms and signals described in repertories and Materia Medica are very doubtful, since old classical studies were performed without precise methodological criteria, being necessary clinic / empirical confirmations. The systematic study of pathogenesis is very difficult to do, regarding to the intrinsic bias of human experimentation and to ethical aspects. On the other hand, because the pathogenetic veterinary studies are very uncommon (20), the small animal veterinary practice is often based upon the extrapolation of human pathogenesis to animal behavior. In this case, men take the rule of a *model* to understand the more refined symptoms of homeopathic remedies. We have observed in some studies carried on animals, that changes of behavior are noticed as a background of the main experimental results (13, 14, 21). This fact points to the need for more systematic studies about animal pathogenesis models, even if they are very hard to design (16, 20, 22).
- f) *Homeopathic effects as a zoo technical tool*: Classical studies in this field are, in general, preliminary studies (without control group) (8, 10) or studies designed according to classical allopathic protocols, often leading to negative and inconclusive results, with rare exceptions (23) which can represent a huge lack of scientific basis for organic farms regulation (24, 25, 26). However, some recent studies have shown the possibility of the use of homeopathic remedies, prepared as a mixture of several primary substances (endogenous and exogenous), as tools for optimization of farm animal production. Two examples can illustrate this aspect: the use of homeopathic complexes for reducing hematomas in turkeys during the transportations of animals, what increases the productivity about 30%, and improving the estrous manifestation in pigs, which implies in significant reduction of semen loss during the insemination process. Both studies were carried out in a placebo-controlled double-blind protocol (27, 28). On the other hand, the *a priori* lack of residue in animal derived products (29) should be considered carefully, since no systematic study has been performed for

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verifying if the mother exposition to homeopathic remedies are able to produce behavioral changes on offspring (pathogenesis ?) or even on human consumers. Reproduction and teratogenesis protocols and studies in this area must be performed in a near future.

Conclusion: maybe the poor quality of clinical trials in veterinary homeopathy can be associate to the lack of scientific methodology in homeopathy educational curriculum added to the lack of interest of classical researchers on homeopathy research. The fusion of a rigorous experimental design with crucial homeopathic principles and particularities could be the clue for better and more concluding studies.

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