

Research in veterinary homoeopathy - where are we going?

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Keywords:

Veterinary homoeopathy - research - synopsis - remedy picture - intra-individual comparison - proof of efficacy - clinical trial - criticism

Summary

In spite of the disapproval the homoeopathy still meets with on the part of the official medical school of thought, during the last three decades it has become established for the medical treatment of animals in lots of veterinary surgeries.

HAHNEMANN's cure is not only criticised on the part of the external group of people, but there are also lots of open questions within the veterinary homoeopathy itself.

In particular the sureness of the remedy pictures' contents is discussed controversially, because the remedy pictures in the veterinary homoeopathy base mainly on toxicological data as well as on the transcription of the human materia medica.

The response to the open questions - regardless if they come from the external or internal - can not be given by speculation but only by research.

This article tries to give a definition of the current position of the research in veterinary homoeopathy, especially the area of conflict is described.

Introduction

It is satisfactory to know that research in homoeopathy improved during the last years. At the same time, criticism was expressed from in- and outside the domain of homoeopathy. Probably some of the difficulties can be eliminated by precise definitions and by establishing a classification system for research projects.

Like conventional medicine, non-conventional therapeutic methods should be well defined, and research has to be done in order to establish their therapeutic value. However, some methods of therapy are more broadly accepted than others because they fit logically into the conventional frame of mind, the theory behind them is more explicable and the mechanism of action is more understandable within this frame: in other words, more plausible. We can produce as many reproducible results as we want or can, if we are not able to give an explanation for these results, the chance is minimal to be heard by the scientific community. On the other hand, we may have very nice theories, if we don't have results battering them, they are worthless.

Actually, the purpose of effectiveness studies is not to prove something, but to add something to the plausibility - and the extend of acceptance - of a certain hypothesis. The plausibility of a hypothesis changes by the results of effectiveness studies; the more quality they have, the less research has to be published to convince the observer.

On the other hand, research directed towards the scientific community as opposed to research towards the homeopathic community can be seen separately.

If conventionally working veterinarians are to be convinced of the effectiveness of homeopathy, more - in comparison with conventional effectiveness studies - positive research results are necessary and research should comply with more strict demands in the methodological field. It is of utmost importance that homeopathic veterinarians collaborate with conventional practitioners and academics in their research. An agreement on the meaning of terms used, a common idea about what may be regarded as 'fact' is necessary. Only then are effectiveness studies likely to yield valid results and convince the conventional medical scientific community.

Scientific research is not only necessary to convince the conventional medical scientific community, but is also indispensable for the development of the professional standard and professional practice. Research in the the field of homeopathy comprise fundamental research (in laboratories) and clinical research (on animals/ patients)

Classification scheme for research in homeopathy

There exist some different schemes to classify the research in homeopathy but the most of them separate outward (addressee: scientific community) and inward directed research (addressee: homeopathic community).

Scheme A

A) Complementary Research

- 0. Philosophy
- 1. Epistemology
- 2. Sociology
- 3. Psychology
- 4. History
- 5. Informatics

B) Pharmacological

- 0. Drug proving
- 0 „old“ remedies (revision of literature, proving on different kinds of animals)
- 1 new remedies, especially remedies with known toxicological potential
- 0. Pharmaceutical Aspects
- 1. Pharmacological Aspects
- 0 „Working“ mechanism
- 1 Dosology
- 2 Choice of Potency

C) Clinical Research

- 0. Case taking
- 1. Choice of remedy
- 2. Follow-up
- 3. Documentation
- 4. Other studies

Scheme B

1 Experimental research

1.1 outward directed-apologetic research

0. basic research: stable, reproducible and researcher independent models of high dilution effects and of the simile principle: Question to be answered: „Can dilutions beyond Avogadro's number produce effects other from control/ placebo?“ and „Are these effects in accordance with the law of similars?“

1. „soft“ clinical studies: effectiveness studies, cost benefit studies, prospective, longitudinal observations, prevention studies, clinical studies with new methodologies (e.g. time series or n=1 studies) which might be debatable on methodological grounds, studies without randomised, blind control. „Does homeopathic therapy have beneficial effects for animals/ patients?“

2. „hard“ clinical studies: randomised, controlled, blinded studies of long-term treatments in tracer illnesses (i.e. with clinical relevance); high methodological standards with up-to-date, mainstream methodology, costly, difficult, dangerous. „Is homeopathic therapy different from/ more than placebo therapy?“

1.2 inward directed-strictly homeopathic research

0. Proving and reprovings of substances with strictly homeopathic procedures

1. controlled clinical observations, outcome correlations

2. research on the specific parameters of potentization, remedy production, quality control of mother tinctures and the like

how to best find the simile, simillimum

2 Conceptual/ Theoretic

2.1 outward directed-apologetic research

0. Theory of high dilution effects: „Is there a theoretical framework for understanding of high dilution effects within the current scientific paradigm?“

1. Methodology: „If high dilution effects are non-classical effects (which likely they are), what kind of methodology has to be used in order to explore them? And, as ramification, what kind of accepted orthodox methodology is possibly most adapted to researching high dilution's effects?“

2.2 inward directed-strictly homeopathic research

0. History of homoeopathy in the (veterinary) medicine

1. Exegesis and interpretation of the classics (Hahnemann, Kent ...)

2. New approaches to case taking (Vithoulkas, Sankaran, Masi....)

I consider remedy provings as a borderline issue: I think (and I have seen it by own practice) it is very difficult to produce data out of a properly conducted remedy proving, which would qualify as a number one, basic-experimental research product. For the two approaches differ widely: the more better a remedy proving the less stable and reproducible the results. Hence my approach: to take it as a paradigm and find some easy to do, simple methodology of producing data.

Some remarks to basic research in homoeopathy

Many attempts have been devoted to proving the efficacy of homeopathic remedies. At present the most urgent questions. E.g. whether high potencies are actually effective, still remain unanswered. It may be concluded that homoeopathy is either based on placebo effects or that the crucial experiments have not yet been performed.

The basic problems of experimental and theoretical research in homoeopathy concerns the following questions:

0. Which kind of proofs have to be furnished in order to demonstrate the efficacy of homoeopathy?

1. What significant levels must be required, and what risks (of the first and second degree) can, or have to be tolerated?

2. What conclusions must be drawn when experimental trials fail?

It is clear that no general answer to these questions can be given. However, keeping these questions in mind seems to be one of the most important ways to avoid further confusing years of basic (and clinical) research on homoeopathy with no remarkable progress.

In order to prove the concepts of homoeopathy, the basic postulates have to be reduced to one or more simple hypotheses which can be subjected to experimental investigations. Right at this point is where a decisive difficulty in recent research begins. Many if not all experimental papers have been devoted to only partial aspects of homoeopathy, e.g. „memory of water“ or the effect of one or a few remedies on more or less intelligible physical, chemical or biological phenomena like electric properties of water, enzymatic activities and growth of plants or cells. They always assume that a significant rejection of the null hypothesis, that is to postulate no difference between control and remedy, has to be regarded as a proof of homoeopathy.

Apart from the statistical fact that, even in case of the validity of the null hypothesis, there is always a finite and for sensitive systems rather high probability of rejecting the null hypothesis, we have to ask of any experiment

0. whether unsuccessful trials actually strong enough to justify any doubt on homoeopathy, or

1. whether a really significant rejection of the null hypothesis helps to understand homoeopathy better than before.

Of course, by taking into account principles of Samuel HAHNEMANN, e.g. the „simile“ and the „potency“ rule, it seems that one finds more support for the placebo thesis of the opponents of homoeopathy than for the experimental findings of its advocates.

This is by no means a reason to reject homoeopathy. Instead, it invites us to assume on a very general „informational“ basis that

0. „similar“ influences are always more effective than „nonsimilar“ ones, and

1. in that case „weak“ couplings may have more biological relevance than strong ones.

Consequently, the possibility of a specific amplification and/ or the induction of „placebo effects“ by means of homeopathic treatment according to HAHNEMANN's rules is one of the most serious candidates for promoting basic understanding of homoeopathy. Thus, proving memory effects in water or demonstrating the effects of homeopathic remedies on some artificial systems may be much less important for homoeopathy than research on the real (physical) mechanism of placebo effects. If homoeopathy were confined to life, characteristics properties of living systems (e.g. their extraordinarily high sensitivity) may (and should) provide at least one necessary condition of homeopathic efficacy.

As long as none of the experiments address this fundamental principle of homoeopathy (simile/ potency rule), the rejection of the null hypothesis as well as its maintenance at the present state of

knowledge may more or less irrelevant for homoeopathy. In statistical terms this means that, even at a very high significance level of the test under examination, the strength of its findings with respect to the momentary basic questions of homoeopathy remains rather weak if it does not incorporate HAHNEMANN's rules.

It has to be concluded that homoeopathy should be confined to the most reliable and basic postulates of HAHNEMANN, irrespective of whether they are applied to clinical, biological, chemical or physical experiments. The three questions on the relevance of homoeopathy (see above) are critical for estimating its significance.

Some remarks to clinical research in homoeopathy

From the very beginning, homoeopathy in human beings was based on empirical research (remedy provings on healthy probands, exact observation of patients, remedy pictures, application according to the similarity principle, individualisation principle, potentization, knowledge and technique of application etc.).

However, this homeopathic research was for its own purposes, and was generally ignored by conventional medicine, as it has no direct relation to the thinking and research systems of school medicine. In clinical research, the method closest to the individuality principle would comprise single case studies on numerous patients and, in chronic cases, over an adequate length of time.

Orthodox medicine, stuck in its own scientific way of thinking, responds with scepticism, rejects such results and often demands standardised experimental research and randomised double-blind trials. While such methods are common in orthodox medicine, they completely disregard the foundations of homoeopathy. As a rule, homeopathic remedies cannot be standardised and applied according to a certain diagnosis, but require strict individualisation on the basis of the homeopathic understanding of disease.

What is to be done in this dilemma? Two exceptions may comply with the criteria for single case studies:

0. The controlled double-blind study with individual choice of remedy. This is extremely time-consuming and confusing as, at the time of the control examination, the homeopath does not know whether his choice of remedy was wrong (the correct individual remedy is not always found at the first consultation) or whether the animal/ patient has merely received the placebo.

1. Double-blind studies with symptom-groups which are so exactly similar that a standardised remedy may cover most of the cases.

The majority of today's clinical studies do not correlate to these exceptions. Despite the violation of such fundamental homeopathic rules, it has been possible to prove the effects (in experiment) and the efficacy (in patients) according to strict orthodox medical criteria. A classical homeopath would in practice, however, very rarely give a standardised remedy for any one particular diagnosis. A seemingly paradoxical situation results in that the most conclusive studies according to orthodox medicine are mostly irrelevant for homeopathic treatment.

Research for its own purposes, i.e. remedy provings, is highly significant for homoeopathy but not acknowledged by orthodox medicine. On the other hand, the study designs of orthodox medicine are irrelevant to homeopathic practice. This paradox is one of the reasons why homoeopathic research is still in its infancy. Added to this is the considerable educational expense for those training to become a classical homeopath and, finally, the practice-orientation of many homeopaths, who have no time for interest in doing research. Moreover a repeatedly presentation of the problems in research and

work is necessary. Without a doubt, many homeopaths have long misunderstood (and many still do that) that research in homoeopathy is essential not only for dialogue with orthodox medicine but also in order to answer a few of their own specific questions.

Some remarks to the special situation in veterinary homoeopathy

In addition to the already mentioned problems in human homoeopathy, clinical research in veterinary medicine has to deal with some particular difficulties. For instance, drug provings on healthy animals do exist only within a very limited range, especially in view of differences between the respective species. This leads to the assumption that a reliable treatment seems to be possible only with certain reservations. The remedy picture for the respective species is composed by the following components:

0. Toxicological data

1. Transmission of symptoms from the homeopathic drug

2. Clinical verification

In this context clinical verification plays the major part, since only symptoms which have been confirmed in practice may provide a basis for rational therapy.

The particular circumstances of veterinary practice, however, also provide some advantages, especially in investigations on groups of patients. In mass breeding stocks, for instance, one can presume a more or less uniform environment. Double-blind studies with a greater number of patients may be conducted here with fewer problems than elsewhere. On the other side, in these situations we often are confronted with grievances in the climatic and/ or feeding circumstances, standing in opposite to the principles of homoeopathy.

Additional there is the problem that in daily practice we are forced to include the patient into a concept of treatment involving more than homoeopathy, because of the multiplicity of pathogenesis and further course of disease. What led to recovery in the end can finally not be answered. Unfortunately, however the success even then is contributed to homoeopathy too frequently.

Correspondingly, it is suggested to study the thesis of KING (1988), KOWALSKI (1989) and MAJERUS (1990) and the publication of RHIGETTI (1988) in which it is referred to these problems and to the multitude of pseudo-scientific literature.

Guidelines for new projects:

The following guidelines should be observed in the planning phase of new research projects at future:

0. Every experimental/ clinical proposal has to be discussed with competent colleague or independent facilities and accepted by these.
1. Each project should be discussed before the beginning at an independent organisation.
2. The main question(s) has to be articulated exactly [It should be tested **only one** question defined clearly as possible, i.e. the simile principle, the effects **or** the efficacy of high dilutions.]
3. It has to be declared how the (null-) hypothesis is or that the investigation has to generate such one.
4. The following details of design has to be described:
 - 0 the number of patients/ animals
 - 1 control-group (yes: the kind of; no: an explanation why not)
 - 2 placebo-group (the same)
 - 3 (double-)blind (the same)
 - 4 randomisation-procedure
 - 5 the criteria of valuation the results, the statistic-methods
0. The results of the examinations has to be submitted at least to one competent expert (statistician).
 1. An own estimation of the scientific and practical relevance has to be discussed.
 2. In a short literature review it has to be explained that the current stand of science for the topic is well known and was taken into account at the own problem definition and investigations.

Conclusion

Clinical research as well as experimental basic research should be extended in the next future, in order to safeguard our stock of homeopathic remedies in the long term. Both lines of research must contribute to the target we are heading for, i.e. the general evidence of effects, efficacy and mode of action of homeopathic preparations. It again has to be pointed out that the "final proof of homeopathy" only will be gained if all clinical and experimental data will fit perfectly into a theoretical concept.

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