EDITORIAL

To those who demand scientific evidence for homeopathy

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Guest Editor, Special Dossier: Scientific Evidence for Homeopathy

Upon discussing homeopathy in various settings, we often find that people react with mistrust, and raise doubts on its scientific grounds and therapeutic validity. Widely disseminated in the mass media, in an indistinct and reiterated manner, the fallacy – or post-truth – asserting "there are no scientific evidence for homeopathy" is incorporated into the collective subconscious, thus serving as strategy to increase prejudice and radicalize postures against this bicentennial medical approach.

A fruit of disinformation or of negation of the studies that ground the homeopathic paradigm on many scientific fields, prejudice is once and again fed by unfavorable pieces published in the mass media and social networks, which, in turn, very seldom divulgate studies with results favorable to homeopathy.

To elucidate doctors and society at large in this regard and to demystify culturally rooted dogmatic attitudes, the Technical Chamber for Homeopathy, Regional Medical Council of the State of São Paulo (CREMESP), prepared Special Dossier, "Scientific Evidence for Homeopathy". This project had the support of Brazilian Homeopathic Medical Association (AMHB) and São Paulo Homeopathic Medical Association (APH) via divulgation in its scientific journal, *Revista de Homeopatia*.

In addition to describing the global situation of homeopathy as a medical specialty and its inclusion in the curricula of medical schools, the dossier further includes reviews on research lines that provide grounds to the homeopathic assumptions, to wit: therapeutic similitude, homeopathic pathogenetic trials, serial and agitated dilutions (high dilutions – HDs), and individualization based on the set of characteristic symptoms exhibited by patient/disease. Similarly, the efficacy and safety of homeopathic treatment are demonstrated in randomized, placebo-controlled clinical trials, systematic reviews and meta-analyses.

The dossier begins by a review entitled "Homeopathy: a brief description of this medical specialty", which discusses historical, social and political aspects of the institutionalization of homeopathy in Brazil and its inclusion in health care systems. It further describes the reasons for patients to seek this therapeutic approach.

The review on "Medical education in non-conventional therapeutics in the world (homeopathy and acupuncture)" highlights the relevance of the inclusion of homeopathy and acupuncture in the curriculum of medical schools in many countries around the world. Such inclusion – actualized through various modalities specific for undergraduate and graduate students, medical residents and practicing doctors - is a

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i Editorial

result of the increasing interest of patients, leading to a similar interest among doctors to learn about such medical approaches.

Aiming at providing scientific grounds to the therapeutic similitude principle through systematic study of the rebound effect of modern drugs, the review entitled "Scientific basis of the homeopathic healing principle in modern pharmacology" discusses hundreds of studies published in high-impact scientific journals which demonstrate a conceptual and phenomenological similarity between rebound effect and the vital reaction (or secondary action) homeopathic treatment elicits. To broaden the implications of such similarity, the author describes the use of modern drugs according to the therapeutic similitude principle, leading to the application of the rebound effect (paradoxical reaction of the body) with curative intention.

To account for the plausibility of the homeopathic use of HDs, the present dossier includes three reviews that describe the advances made in fundamental research along the past decades: "The soundness of homeopathic fundamental research", "Effects of homeopathic high dilutions on *in vitro* models: literature review", and "Effects of homeopathic high dilutions on plants: literature review". These reviews discuss hundreds of experiments and dozens of lines of research that together demonstrate the effects of HDs in physical-chemical and biological models (*in vitro*, plants and animals).

Showing that the positive effects of homeopathic treatment are not mere placebo effect, as it is widely advertised, review "Clinical research in homeopathy: systematic reviews and randomized clinical trials" describes positive results found in dozens of homeopathic placebo-controlled clinical trials targeting variable clinical conditions, as well as systematic reviews and meta-analyses. These results are particularly illustrated by 2 clinical trials conducted at prestigious Brazilian research institutions: "Potentized estrogen in homeopathic treatment of endometriosis-associated pelvic pain: A 24-week, randomized, double-blind, placebo-controlled study" and "Randomized, double-blind trial on the efficacy of homeopathic treatment in children with recurrent tonsillitis".

As concerns the safety of homeopathic treatment, the review entitled "Do homeopathic medicines cause drug-dependent adverse effects or aggravation?" demonstrates, through an analysis of placebo-controlled clinical trials, that although mild and transient, homeopathic medicines cause more adverse effects compared to placebo.

The final review, "Do homeopathic medicines induce symptoms in apparently healthy volunteers? The Brazilian contribution to the debate on homeopathic pathogenetic trials" discusses the historical development and state of the art in homeopathic pathogenetic experimentation. These experiments are conducted to establish the curative properties of drugs (pathogenetic effects on health individuals) that ground the application of the therapeutic similitude principle.

Despite the ongoing difficulties and limitations opposing the development of research in homeopathy – partly due to methodological aspects, and partly to lack of institutional and financial support – the experimental and clinical studies described in this dossier, which ground the homeopathic assumptions and confirm the efficacy and safety of this approach to therapeutics – provide unquestionable proof for the "availability of scientific evidence for homeopathy", against the false and prejudiced opinion that is widely divulgated. Nevertheless, further studies are still needed to

improve clinical practice and elucidate some aspects peculiar to the homeopathic paradigm.

With the divulgation of the present dossier, prepared with the support of Technical Chamber for Homeopathy, CREMESP, we hope to dispel doubts and sensitize our colleagues as to the validity and relevance of homeopathy as adjuvant treatment complementary to all other medical specialties according to ethical and safe principles. Our overall goals are to broaden the understanding of human disease, increase the therapeutic resources, contribute to the definition and effectiveness of medicine in chronic diseases, minimize the adverse effects of modern drugs and strengthen the patient-doctor relationship, among other aspects. In this way, we will be able to work together, since "The physician's high and only mission is to restore the sick to health, to cure, as it is termed" (Samuel Hahnemann, *Organon of medicine*, § 1).