MODERN ASPECTS OF HOMŒOPATHIC RESEARCH

DRS. GARTH W. BOERICKE, M.D. and RUDOLPH B. SMITH, M.T.,
Pennsylvania

It would be most appropriate in a paper of this nature to have the regular reader of Homœopathic literature who is using Homœopathy in his practice, review his thinking concerning drug potency.

When a physician gives his patient a 30X or 60X dilution of a drug (i.e. sulphur), he is in effect admitting to the administration of a $1X10^{-30}$ or $1X10^{-60}$ dilution of sulphur. In the light of proven modern science such a condition is not possible. The fact that a clinical result can most often be obtained lends no explanation that satisfies the modern scientific arguments against Homœopathy.

At the time Samuel Hahnemann gave his classic observations to medicine obtained from clinical results (similars, high dilution and single drug), he was stating a fact as startling and new in his day as may be the conclusions that the experiments of this paper have forced upon us.

This research will not add one thing to basic Homœopathic law, but it is hoped that it can explain some of that law in the light of modern and accepted chemical and physical science.

It is also to be noted that this work will remain divorced from theory, philosophy and unresearched conclusions.

Too long has Homœopathy been a beacon of excellent therapeutic results which have remained unexplained by didactic scientific facts. If the modern practising physician is to use Homœopathic therapeutics, and not be exposed to ridicule, he must be scientifically acquainted with the reasons why he does so. These reasons must be of proven validity. No other way seems possible of success.

This work has been conducted over a period of years solely to scientifically explain a fundamental observation of Hahnemann's namely high dilutions. For practical purposes the principles of

similars and single drug can still be explained by good clinical observation and practice. It is the high dilution that has retained the characteristics of an insurmountable obstacle. Any solution of this problem has also been complicated by the theorists and philosophers, who after expounding their theories have removed themselves from the problems of scientific research so created thus leaving more unexplained theory to further complicate the literature. The literature is rich in theory and extremely poor in proven fact sustained by experiment.

In defense of Homœopathy it must be admitted, that its rich and fruitful background of clinical success was established during most of its early existence, which was complicated by being contemporary with the physical sciences, that could give little if any true help in solving its postulates. With the birth of the modern atomic concept of chemistry and physics, and the mathematical proof of this concept and its high development during the early part of this century, this great therapeutic giant did not re-evaluate its thinking to modern science. It does until this time remain a therapeutic gem without its true lustre which could be imparted by the cut of science.

To reduce something to a scientific fact it must first be measured. To make a measurement one must have and see something physical to be measured. It is also necessary to acquire the tools to make the measurement if the five physical senses can no longer be relied upon. It continues to be necessary to have the same measurements duplicated each time the same conditions are established.

Basically a good place to start would be a scientific medical fact that could be coupled with Homœopathic "law." This has been done experimentally with lipoid flocculation technique in 1048 clinical cases. This test makes use of the presence or absence of chylo microns in the blood serum which is undergoing tests and reacting on a colloidal lipoid. This system is then tested against drugs in the order of 10^{-6}, 10^{-12}, 10^{-30} and as high as 10^{-60} dilution. The indicated drugs established by this test are then used clinically. They have a clinical response of 78%. It is freely admitted that this beginning approach to scientific experiment is geared somewhat to observation of clinical fact, but here the road to

truth separates. Once the drug is confirmed as the clinical therapeutic agent, the test which established it as such can be photographed (visual proof), also the drug dilution is known. It then becomes the problem of the experimenter to establish that only one drug made in a Homœopathic way, is the drug of action. For simplicity and in a long series of experiments, it was found that one drug (sulphur) made by succession, and a chemically and physically equal drug made by dilution, would not establish the same laboratory picture. It is also to be noted that in all of the sulphur cases studied, the sulphur was dispensed in 87% alcohol. This was true if the dilution was 10^{-6} or (as high as) 10^{-60}.

In the cases studied there are only two possible components that can act as a (high dilution) drug. One is the drug itself, in this case sulphur, and the other is the *vehicle in which it is carried*. On the one hand the solute is the actor and on the other the solvent. A third possibility arises in cases of low dilution when both the solute and solvent can be actors. It is now well established that some drugs in a concentration of 1 mgm. to the liter or a part per million can be very active therapeutic agents. This concentration is a Homœopathic 6X dilution.

In Homœopathic pharmacy only three dispensing compounds are generally used, and for the most part Homœopathic therapeutics does not use any others. These compounds are alcohol, water, and milk sugar. The most basic or widely used dispensing compound is 87% alcohol and it was used as the solvent in these experiments.

Solution produces a state of molecular subdivision, that is, each molecule of the solute is separated from another molecule of the solute by one or more molecules of the solvent. By Avagadro's law, if dilution is carried past $6.023X10^{23}$ dilution the solvent can no longer contain any molecules of the original solute. This is approximately a 24X Homœopathic Dilution or potency. Herein begins the real problem.

It is not necessary to reiterate that Homœopathic practitioners have obtained excellent clincial results with dilutions (potencies) of drugs higher than 24X but modern physical science claims no action can be possible if the solute is the therapeutic actor.

It is also reasonable and possible to suppose then when a

potency is being produced in a homœopathic way from a tincture (θ dilution) that the concentration of the solute may not exist in a lineal order as the potency. This was first thought to have been established by emission spectroscopy of 12X sulphur fired to incandescence on a Welshbach mantle on which large quantities had been concentrated (0.5—1.0 ozs.) and showing no sulphur lines in the spectrum. Recently, however, phosphorus experiments using P_{32} which is a Beta emitter have shown that the early work may be in error when as low as 12X concentration is studied.

One of our first experimental steps was directed toward showing that a 12X potency of sulphur, a 12X dilution of sulphur and an 87% alcohol control, after giving different lipoid test patterns in a series of sulphur cases, would give a difference in N.M.R. Graphs.

The main reason for using 12X dilution ($1X10^{-12}$) was one of expediency. It is a dilution or potency high enough to have advanced passed the limits of modern drug therapeutic dilution, with the possible exception of doses of the radio isotopes. It is low enough to be easily handled from a Homœopathic view and still it gives good results with the lipoid test. It is impossible to measure it by known chemical methods.

The lipoid test has given a few good clinical results with nosodes in the order of 10^{-30} and up to 10^{-60}. For our early experimental work this type of drug (nosodes) would be extremely complex and very hard to work with—they were not studied.

It is to be noted that even if the 12X sulphurs and alcohol controls did give a difference in N.M.R. graphs, we could be a long way from any scientific explanation of potency action, because we would find no way in which to measure any energy that would be imparted to the Homœopathic drug by succussion to change its therapeutic action.

There is a very useful mathematical law that states—things equal to the same thing, are equal to each other. It was thought that if we used Ultra Sonic studies they could perhaps become the method to equate the equals. We performed a series of experiments in which we made four graphs instead of the original three and found that an ultra sonic potency was more nearly equal to a Homœopathic potency than it was to a dilution, when used in

the lipoid test for sulphur. If the N.M.R. graph of sonic sulphur is like a successed potency of sulphur, we can then conclude that some or all of the reason was due to an equal input of energy. On the one hand mechanical energy, and on the other sonic energy. This sonic energy can be measured by thermometry and reduced to a mechanical equivalent.

We now have a very rough idea of energy imparted to each separate dilution 3.991×10^9 ergs/10ml (0.3911×10^9 ergs/ml) (The system so energized must be able to maintain this energy and it must be able to impart it as a therapeutic action).

The N.M.R. graphs of this last series of experiments (graphs made at the University of Delaware by Dr. Beachell) all show some difference when compared to graphs of alcohol and water of the same dilution. These differences are slight. It is very possible that it is these slight differences which will help produce our answer. In some of the graphs i.e. (the 12X sulphur Potency) the CH_2 section is broader than usual. This slight difference may indicate a change in the environment of the OH and CH_2 groups. In all of the other N.M.R. Studies only the OH group was thought to be active, but here we see the possibility of the CH_2 group being involved in the production of potencies.

Since most of the work being done on these samples lies in the very shadowy region reached where even modern instruments have reached their ability to probe material structure ($1X10^{-12}$) it is very possible that when dilutions are made for the 6X (10^{-6}) to 12X (10^{-12}) that the solute does not dilute in a lineal way. To prove this we performed the following experiment:

We made 7X to 12X dilution of phosphorus 32 in a homœopathic way. Then we evaporated a portion under the infra red lamp and made a series of counts on a Thin Window Gas Flow Counter. The gas was a mixture of 0.95% isobutane and 99.05% helium. The radio assay was plotted on a log-line graph and the resulting curve was a straight line. Thus a lineal function of the concentration is established.

Since Phosphorus is a beta emitter with a half life period of 14.22 days and an eleven period cycle, it is reasonable to suppose that after 11×14.22 days (156.42 days) radio phosphorus is nil in the original samples. Since phosphorus 32 after

emitting a beta particle (electron) becomes sulphur 32, it is also reasonable to suppose that all of the phosphorus 32 has been transmuted in sulphur 32. From a series of dilutions, of phosphorus 32 from 7X to 12X in 87% alcohol after 156.42 days, there remains a series of dilutions of sulphur in the same order. This sulphur we know to be in a lineal dilution. With some modification in the experimental work we hope to continue to study this series of dilutions with N.M.R. and lipoid reactions.

Any general summary of results related to N.M.R. in this series would be exceptionally difficult to simplify. There are several reasons for this. It is almost impossible to drawn conclusions on so few a number of studies and also the differences are very slight. It can, however, be concluded from this work that some form of energy is imparted by succussion to a homœopathic drug, resulting in a slight change of the alcohol in these dilutions. There is a structural change in the solvent as the potency is made from θ dilution to a higher dilution when the solvent is 87% alcohol.

It has also been established by the phosphorus experiments that as the potency progresses the solute is decreasing in a lineal way, and thus as a 24X ($6.023X10^{23}$) potency no drug will remain.

To conclude this work we believe that it has been established that dilutions below the 24X are active because the solute and solvent are both reactive in some proportion, but that for all practice purposes the solvent becomes increasingly important from the 6X to 12X dilution and after the 24X it is probably the only active agent remaining.

These few experiments are in no way to be construed as ultimate. They are pointing a way, and it is to be hoped that a great amount of work will follow along these lines of study, namely, the solvent as therapeutic actor in homœopathic drug potencies.*

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* *Editorial Note:*

We fear that this paper may be a bit too curt for most of our readers; still we print it in order to draw the attention of the homœopathic research workers of our country to this highly important line of experiment. We are trying to contact the authors for getting a more lucid detail of their experiments.—J. K.

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RED LINE SYMPTOMS

(Contiuned from page 206)

It is full of congestions.
Discharges are sour.
Legs and feet feel as though they had on damp stockings.
Breathless worse ascending.
Worse after bathing or meddling with water.
Worse morning.
Sinking sensation at any time.
Worse exertion.

Calc. is eminently a sycotic medicine as the early morning aggravation would indicate.

—The Homœopathic World, July-Sept., '59
