

APITHERAPY TODAY

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I am rather sad to learn from my honoured colleague, professor FOLCH, that Spanish pharmacopoeia have given up using bees wax, and replaced it by synthetical matters. The current trend making science abandon natural products (considered a little magical) and replace them by very limited synthetic ones is really very general. But now people are coming back to the natural products.

People have really been aware for some time that natural products and synthetical products have a complementary action and cannot be superposed. For example, the action of the alcoholic extract of digitalis and the pure digitaloside do not have at all the same effect on the heart muscle; the usefulness of the extract, which contains a great number of substances, is always more significant.

We must confess that in therapeutics and physiology the study of the natural products coming from the hive has just started. To illustrate this let us take an example which may seem paradoxical — that of a basic bee product, honey; one I dedicated this product a whole chapter in my book "The bee biology", a chapter which was written rather thoughtlessly. As a matter of fact, the therapeutic research on honey may be severely criticized. In most cases, we completely ignore which particular honey is being tested by clinicians although we know that there are as many different kinds of honey as of wines. On the other hand, it is not too easy to start experiments on honey. Modern techniques use placebo, a neutral substance, to facilitate comparisons. The placebo is given to sick people in the exact form of the medicine being tested. For instance we mark the medicine with A and the placebo with B in our experiment. Neither the physician nor the patient know the identity of A and B. The physician writes down his remarks unconsciously comparing the effects of A and B. The statistician is the one who will establish whether A and B have a different action.

But in the case of honey, how shall we prepare a placebo? It has to have the exact appearance and taste of honey. This could be obtained from a mixture a glucose and levulose but we can't be very sure that the patient would not feel the difference in taste and hence could have an unconscious, psychosomatic reaction which must be eliminated. The only method that can be recommended is to introduce the honey and the placebo in capsules which will not open until in the stomach. Such rigorously controlled experiments have not yet been done. But we still have some information on which to start a clinical investigation. For instance many physicians report the favourable action of honey on children and that the Koch factor "glykutil" makes honey glucose more quickly assimilate than glucose administered on its own. Now to speak about pollen. The pollen industry seems to be developing greatly and I personally am very satisfied with this.

Nevertheless we know nearly nothing of pollen's physiological and therapeutical action. I once made some rudimentary and unskilled investigations on this product

I found the indisputable action of pollen on the adrenal gland but I never tried it with modern methods. Experiences on teen-agers, convalescents and dystrophic individuals indicated a rapid recuperation of their weight but a "concentration" of their blood as well, i.e. an increase in the number of leucocytes and red corpuscles, a sign that blood equilibrium was disturbed and that the hypophysis no doubt was also involved. But these are vague hypotheses which must be confirmed.

So far work has been done with mixed pollens.

But any serious study on the physiological action of pollen must use highly pure pollens ; e.g. field poppy pollen has no taxonomic or other connection with fruit trees pollen ; beekeepers could easily obtain very pure pollens from 6—7 species of plants in France and probably also in Spain. We must surpass this archaic period and work nomore with unrelated pollens mixed in unknown proportions.

Certainly you will blame me if I do not speak about royal jelly. Here, too, we have not sufficiently serious experiences with placebo. However, the Polish and Soviet experiences of the action of royal jelly on dystrophic children indicate it has an extremely important action, different from that of other therapeutic agents (which in fact are often inefficient in these cases). I myself made experiments on old people with placebo and under these conditions I could confirm the positive effect of royal jelly. But it is a pity that we have no data on the various fractions of royal jelly (e.g. the acid and the proteic fractions). As to propolis, the last which appeared in the group of apitherapeutic substances, a few papers show that its action may be very interesting in various clinical domains.

I only hope that investigations will be carried out earnestly from now on, always using placebo. If we shall do this, a new and very profitable way of apitherapy investigation might be opened.