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The Humble Humbug

Until lately the placebo has never been regarded as quite respectable. In the family of drugs it has always been the flea-bitten mongrel dog, kicked into the kitchen when company calls but uncommonly useful for dealing with undesirables at the back door. Our predecessors paid little attention to such a lowly menial, and published references to it were few. But the spread of scientific methods to the study of materia medica has led to a remarkable improvement in the status of what PEPPER called "this humble humbug." 1 The placebo is now dignified with the title of a "research tool," for no contemporary investigation of a new medicament is complete without placebo controls.

In such trials the potency of the unknown drug is to some extent judged by its effect compared with that of a pharmacologically inert substance. the placebo, though it may be pharmacologically inert, is often psychologically active, and this can lead to error. When, for example, patients with wound pain after operation have normal saline injected, three or four out of every ten will probably report satisfactory relief.2 If the controls in a trial of a new analgesic happen to include a disproportionately large number of such "placebo reactors," their lack of discrimination may make the new drug seem less potent than it really is. Similarly the best dose of a pharmacologically effective drug may be underestimated. Jellinek³ pointed out these difficulties in 1946, and since then BEECHER and his colleagues have investigated them in detail.2 4 LASAGNA et al.2 gave alternate morphine and saline injections to 69 patients who had undergone operation. They found that 14% were consistent placebo reactors, in that injection of saline always relieved their pain; 31% were consistent non-reactors and never got relief from saline; while 55% were inconsistent, sometimes reporting relief and sometimes not. The consistent reactors also seemed to get more telief from the morphine than did the consistent non-reactors, though there was no evidence that their pain was any less severe. Consistent reactors and consistent non-reactors were carefully investigated psychologically. The two groups did not differ in sex-distribution or in average intelligence. placebo reactors were more emotional and gushing, and more grateful for and impressed by hospital care; they asked less frequently for medication and were more cooperative with the nursing staff; and they

talked more than the non-reactors, who by contrast tended to be critical, unbending, and emotionally controlled. Reactors more commonly gave a history of psychosomatic symptoms in the past; they were more addicted to purgatives and aspirin (but not, oddly enough, to sedatives); and the women in this group were more prone to dysmenorrhœa. Rorschach testing the most striking difference between the groups was the much higher frequency among reactors of responses related to the abdominal viscera. This seems to indicate a tendency to preoccupation with internal bodily processes, which is not unexpected in view of the prevalence of psychosomatic symptoms in the group. LASAGNA et al. conclude that the sort of person who is likely to be deceived by a placebo can be recognised, though only after considerable scrutiny. Their own attempts at "spot diagnosis" of probable placebo reactors were more often wrong than right. They found no easy way of detecting such people, in order to weed them out from a proposed drug trial. Perhaps this subject will appeal to research-minded general practitioners, who are better placed than anyone else to find out why Mrs. A finds her tonic so wonderful, while Mrs. B pours hers down the sink.

So much for the placebo as a research tool. therapy some, like CABOT, would give it no place at all: "Placebo giving is quackery." 5 But LESLIE 6 quotes Plato in defence of the occasional, indispensable medical lie. Those who have qualms of conscience about prescribing pharmacologically useless medicines tend to use semi-placebos, such as vitamins, in the vague hope that these may do some good. wrong, for thereby the prescriber deceives himself as well as the patient. If deception there must be, says LESLIE, let it be wholehearted, unflinching, and efficient. A placebo medicine should be red, yellow, or brown; for blue and green are colours popularly associated with poisons or with external applications. The taste should be bitter but not unpleasant. Capsules should be coloured, and tablets either very small (on the multum in parvo principle) or impressively large; they should not look like everyday tablets such as aspirin. No method of administration can equal the needle" for effect, especially if the substance injected produces some subjective sensation. adds Leslie, no placebo must ever be capable of doing harm: therapy must not be confused with punishment.

The majority will probably agree with HANDFIELD-Jones, who suggests that there is a small place in practice for the placebo as a means of reinforcing a patient's confidence in his recovery, when the diagnosis is undoubted and no more effective treatment is possible; that for some unintelligent or inadequate patients life is made easier by a bottle of medicine to comfort their ego; that to refuse a placebo to a dying incurable patient may be simply cruel; and that to decline to humour an elderly "chronic' brought up on the bottle is hardly within the bounds of possibility. On the other hand, a placebo should never be given if the diagnosis is in doubt, or as a substitute for proper psychotherapy. And it should always be discontinued as soon as possible.

Pepper, O. H. P. Trans. Coll. Phycns Philad. 1945, 13, 81.
Lasagna, L., Mosterller, F., von Felsinger, J. M., Beecher, H. K. Amer. J. Med. 1954, 16, 770.
Jellinek, E. M. Biomet. Bull. 1946, 2, 87.
Beecher, H. K., Keats, A. S., Mosteller, F., Lasagna, L. J. Pharmacol. 1953, 109, 393.

Cabot, R. C. J. Amer. med. Ass. 1906, 47, 982.
Leslie, A. Amer. J. Med. 1954, 16, 854.
Handfield-Jones, R. P. C. Lancet, 1953, ii, 822.