# Editorial

## "THERAPEUTIC JUNGLE*"

I do not recall when the term 'therapeutic jungle' came into usage, nor do I remember who coined this term. But I do know, as also my colleagues, whether on the preaching (non-clinical) or practising (clinical) sides, that today we are tangled in a therapeutic jungle, a term which obviously refers to the drug dilemma created in recent years by the unprecedented flood of new drugs, unrestricted pharmaceutical advertisements, mounting drug reactions and polypharmacy.

Due to an intimate alliance between the organic chemist and the pharmacologist, methods for conceiving countless number of drugs have been evolved resulting in "drug explosion". This has no doubt made some admirable additions to the armamentarium of the physician, and today he has drugs against diseases for which none was available yesterday. However, most of the new drugs have been developed as a result of minor modifications of the chemical structure of a known one (3). In fact being slight variants of an old established drug, they are chips of the same block and offer little, if any, advantage to the patient. Hence, concerted efforts have to be directed towards popularization of the new products among the medical profession in order to improve the health of the patient while all along it is the health of the manufacturer that is sought to be improved.

The moment the new drug adorns the shelf of a Druggist's shop, the manufacturer bombards his targets (clinicians) by post with a barrage of colourful and decorative brochures and pamphlets. Such literature is clever rather than factual (1). Straightforward information is substituted by ingeniously persuasive phrases. Quotations from published articles are picked out of context. Inferior quality publications in the sub-standard journals are cited in vindication of the claims even when superior investigative work is available to refute them. References are given of unpublished findings from 'personal communications' and 'company's files'. Citations are made from the original articles contributed by a leading pharmacologist or physician in the firm's own paramedical (indeed pseudomedical) journals.

This heavy pounding with literature is soon followed by launching a frontal attack on the doctor by the suave medical representative who eulogizes the revolutionary new qualities of the new drug in regard to ease of administration, quicker absorption and increased blood concentrations. The physician, unable to keep pace with the rapid strides made by the pharmaceutical industry finds it difficult, if not impossibe, to master the full implications of new drugs.

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He is led to believe that the seemingly major differences in blood levels and rate of absorption (which are invariably statistically significant) are distinct therapeutic advantages of the new drug.

Unwittingly and inadvertently, the physician finds himself succumbing to the pressures of commercial aggression and his prescriptions begin to reflect the blandishments of pharmaceutical advertising. Perhaps his resistance against the onslaughts of the drug industry had already been insidiously but effectively weakened by his participation in the *manufacturer's sponsored banquets at annual meetings*, generous donations to his institution, grants-in-aid to his department, financial assistance to his research programmes, subsidies to the journal of his Association through advertisements and perhaps by a host of other subtle promotional manoeuvres.

As more and more of these new drugs find their way to the patient through the prescription of a doctor, who does not either care, or is not permitted, to fully appreciate the dangers inherent in every pharmacologically potent compound, an increased *incidence of adverse drug reactions becomes inevitable*. In fact, drug reactions have mounted to such staggering proportions in recent years that books and monographs on drug-induced diseases have been published (4). This is not to say that it is only the holocaust of half-baked new drugs which is responsible for untoward reactions but it is to emphasize that it is one of the chief offenders (2).

Perhaps, equally guilty in this respect is the polypharmacy as it is practised today by the pharmaceutical firms. There are available a motley array of fixed-dose combination of drugs in the market. Many of these are branded as new products but in reality are merely a mixture of two or more old drugs which have been combined together in one colourful wrapper or bottle or ampoule in order to potentiate pharmacotherapeutic activity while what they actually potentiate is the sale and profit of the manufacturer and his agents. These combinations often contain constituents which may be totally unnecessary (therapeutically) but are directly and wholly responsible for producing serious, and sometimes fatal, reactions (6). Numerous case reports can be cited in support of this (4).

Although no precise count is kept of the adverse drug (reactions) in our country, nor is it possible to keep track of them for obvious reasons. American statistics are quite revealing. It has been estimated in a study that 14 per cent of patients admitted in a hospital suffer from serious drug reactions (5). Perhaps, time has come to recognize such reactions as having grown up to the stature of hospital infection (7) otherwise, in my opinion, the day is not far off when the drug will be listed as a pathogen in the text books of Pathology.

The purpose of writing this Editorial is not to declare a war on drugs or to castigate the pharmaceutical industry and the clinician; nor is it an exercise to drive a wedge between those who supply sometimes spectacular life-saving drugs and those who prescribe them. Also, it is not being urged upon the industry to halt or even decelerate their pace aimed at the discovery of new useful drugs. All that is intended is to focus attention on the sad state of affairs and to stimulate thought and action for evolving a practical basic philosophy in the midst of so much confusion.

Perhaps, drug jungle can be cleared :—

IF MANUFACTURERS

1. Shift the emphasis from structural jugglery to the task of discovery of truely new drugs.
2. Supply factual information to the clinician which not only blows the trumpet or acclaim but also beats the drum of warning.
3. Check themselves from mass media advertising which makes one believe that Nixoderm is a panacea for all skin diseases or that Vaculax is a 'must' every week to satisfy our urge to purge or that Anacin wages a three-pronged war on pain which makes it vastly superior to acetyl salicylic acid or that Glycodin Syrup eradicates the root-cause of cough without any addiction liability.

IF CLINICIANS

1. Pause and ponder over the time-honoured advice that 'a physician should neither be the first to use a new drug nor the last to discard an old one'.
2. Use prototypes as far as possible.
3. Refrain from prescribing fixed-dose combination of drugs unless there is a valid indication for the use of all of its ingredients.
4. Transcend the subtle and overt pressures of commercial aggression.
5. Acquire information about new drugs from standard medical journals rather than be beguided by what the manufacturers' advertisements claim for their products, such as : Coramine (Ciba) is a "matchlesss prevention against a tragic scene" or E-mycin (Themis) is "best tolerated by premature infants, newborns, children and adults too" or Phenargan (May and Baker) is a "well-tolerated preparation for infants on the verge of tears and other young patients in years" or Liv. 52 (Himalaya) permits children "to eat better, play better and grow better" etc.

IF PHARMACOLOGISTS

1. Stir themselves to compile information on useful drugs in actual practice based on data published in clinical journals and transmit the same to the practising doctors through the columns of a widely circulated journal like the Journal of Indian Medical Association.
2. Work out a procedure for obtaining information on drug reactions from the associated hospitals, evaluate the same and disseminate it in the form of periodic interpretive bulletins as is being done by the Pharmacology Department of Maulana Azad Medical College, New Delhi.
3. Resist invitations for writing about a new drug in the manufacturer's paramedical journal which gives a veneer of respectability to his products.

4. Exercise restraint in emphasis ng in their scientific communications the "greater potency an reduced toxicity" of the drug which they have investigated.

To conclude, I am conscious of the fact that I may be accused of adopting a "holier tha thou" posture in this Editorial since I do not have to practice (being in a non-practising jo what I preach. And yet I have ventured to write what I have written because I strongly feel th something must be, and can be, done to hack through the therapeutic thicket lest we get hop lessly lost in its lush and luxuriant overgrowth.

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