INFLAMMATION

This journal seldom celebrates historical anniversaries. Inflammation, however, would appear to form the basis on which all rheumatology rests, and it is now just 1,900 years since Celsus (in A.D. 64) promulgated his four "cardinal signs"—rubor, dolor, tumor, and calor—to which the subsequent centuries have only managed to add a fifth, impairment of function.

Just what inflammation is, what processes are involved, and what biochemical and enzymatic changes take place, remain still largely unknown. The considerable literature on inflammatory processes which are induced in different experimental animals in a variety of different ways bears, on the whole, little relation to the inflammatory disease processes that we see in wards and out-patient clinics, and drugs which influence the one may have little or no effect on the other. This is revealed whenever chemists, pharmacologists, and clinicians meet to discuss the problem, as they did 2 years ago at the Empire Rheumatism Council's Symposium held in London at the Postgraduate School, and this year at the International Symposium on non-steroidal anti-inflammatory drugs held in Milan at the Istituto Mario Negri, and sponsored by the European Society of Biochemical Pharmacology. In spite of the vast amount of work which has been done, the bridge which joins chemist, pharmacologist, and clinician is of the flimsiest character, a thin, filamentous construction strung precariously across the gorges of our abysmal ignorance. The research chemist does not get many leads from his pharmacological colleagues as to what chemical substances will affect the inflammatory process in the experimental animal, and in turn what proves effective in the pharmacologist's laboratory may be an abject failure later in the wards. Nevertheless, congresses limited to relatively small numbers of interested persons, such as the two mentioned above, are of prime importance, for only by meeting on such occasions and living for several days together can common problems be discussed adequately by the participants. As Lord Brain said on one occasion, the field of medical knowledge is so vast that the days of Homo sapiens seem to be over; we can only hope that Homo consultans from now on will take his place. Specialists live and work today in grooves. Pharmacologist, pharmacist, chemist, biochemist, and clinician not only meet relatively seldom, but they tend to see and think only in terms of their particular portion of the field. Inflammation, for instance, means one thing to one man, something quite different to another, and in our present state of ignorance it is even difficult to define it in any single context.

The list of anti-inflammatory agents available to us today is not large. Knowledge regarding their modes of action is still conflicting and uncertain, and this is so even of acetylsalicylic acid, which has been with us for many years. It is a moot point whether using a drug as an anti-inflammatory agent, to relieve symptoms without affecting the underlying basic pathological process, is good or permissible therapy, or whether it is not a swing-back to the old days when drugs were given to patients with pulmonary tuberculosis for instance, with the aim of reducing fever and sweating. The answer must be that if easing of symptoms is not counterbalanced by undesired toxic side-effects, there is a case for such therapy being employed. Gout is not cured by phenylbutazone or oxyphnenbutazone, but it would be unethical not to treat it with the appropriate drug, and the use of anti-inflammatory corticosteroid ointments in suitable cases is now orthodox dermatological practice. Meantime, the search goes on for effective agents which will adequately relieve inflammatory features of the arthritic disorders without causing toxic side-effects. To date, all agents which have a potent anti-inflammatory effect, such as the corticosteroids or corticotrophin, or those which are less potent, such as the pyrazoles and salicylates, have unwanted effects, particularly on the gastro-intestinal tract, too often to make them entirely satisfactory.