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PULMONARY TUBERCULOSIS

1.—Introductory

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In this issue of our Journal our intention has been to give the reader a symposium which, it is hoped, will furnish a practical account of the various problems connected with this disease as they present themselves to the practitioner of today, and of the different methods of therapeutic approach which the researches of the last few decades have taught us. Those of us whose introduction to the study of clinical medicine and pathology dates back to the beginning of the century can realize how great has been the modification, not only in our treatment of phthisis, but also in our whole conception of the nature of the disease, its pathogenesis, and its natural history since the discovery of its causal agent by Robert Koch in 1882.

From the accompanying graph the continuing decline in tuberculosis mortality can be clearly seen. The causes for this are difficult to determine; it cannot necessarily be attributed to improved hygiene, though this has doubtless played a not unimportant part. It is more than likely that one of the factors is a gradual increase over many years in the national resistance to the organism, a phenomenon which may be seen in

the case of diseases other than tuberculosis, which seem to have lessened in virulence with the passing of time. It is also possible that it may be

Mortality from all forms of tuberculosis (England and Wales).

(Graph compiled from figures from the statistical review of the Registrar General for 1950).

an example of the changing face of disease, which seems to vary in cyclic periods. It is, however, none the less true that tuberculosis is still a national scourge, to which none of our modern remedies, either in the field of surgery or in that of chemotherapy, has so far given a final successful antidote. Perhaps one of the most significant changes in our view of pulmonary tuberculosis in the last half century is the tendency to regard it not so much as a disease of the lung as a systemic infection with an accompanying pulmonary lesion. This view has done much not only to influence treatment as a whole but also to encourage more systematic planning in the employment of all the remedial measures known to us and the avoidance of haphazard treatment, whether by the older routine methods, by surgical or quasi-surgical intervention, or by modern chemotherapy.

The advances in radiology and the general acceptance by the lay public of mass radiography on a large scale have added considerably to the recognition of tuberculous lesions of the lung at a really early stage. It is to be regretted that such early diagnosis is not always followed by its logical corollary, i.e. the accurate and frequent observation of serial X-rays in the case thus detected, and the institution of suitable treatment in the asymptomatic stage. It is not yet fully realized that the earliest phases of active disease are frequently unaccompanied by any overt symptoms of illness, especially in the so-called 'young adult' type of disease. Only too often does it happen that failure to take decisive action, when warning has been given by a mass radiography unit, results in a grave loss of valuable time, to the corresponding detriment of the patient concerned. The actual handling of the symptomless case referred to the practitioner by a mass radiography unit is a delicate and sometimes a difficult task which calls not only for much care and vigilance but also for tact and judgment. There are not a few cases in which precipitate interference with the patient's mode of life may prove as harmful as it is unnecessary. No little experience is required in arriving at a decision as to (a) whether active treatment is necessary, and (b) the nature and extent of such

treatment as may be prescribed. Much depends upon the physician's clinical instinct and ability to estimate the patient's potential resistance—and of this important factor we have as yet no exact or scientific criterion. The psychological make-up of the individual and the details of his or her environment, both at work and at home, must also be taken into account. Not least in importance is the manner in which the doctor's information is conveyed to the patient. A judicious combination of caution and realism is essential to ensure obedience to necessary instructions while at the same time preserving that sense of trust without which the practitioner cannot hope to receive the co-operation so essential to success.

A critical survey of the remarkable advances in the treatment of this disease should serve to emphasize the importance of the long-term policy in formulating a régime for any individual patient committed to our care. This is surely true to a greater or less extent throughout the field of medicine, but it seems to us to have especial force in the case of the phthisical patient of whom it has been cynically remarked that he should never be regarded as cured of his tuberculosis until he has been safely buried of some other disease! There is, perhaps, no other malady for which so many cures have been advertised. Many of them, of course, have been purely empirical and without scientific foundation, but even in regard to those which are based on logical reasoning and a knowledge of pathology there has been a tendency to look upon the newest as the chief in importance and to regard it, perhaps subconsciously, as a substitute for certain cardinal principles in treatment that have stood the test of time. The introduction of the Sanatorium was a great achievement, the results of which in comparison with those of earlier days constituted an undoubted advance in our knowledge and contributed to the saving of many lives. There still remained many patients who, in spite of the provision of such ideal environment, could not survive without further help; this eventually came in the shape of collapse therapy. The introduction of artificial pneumothorax was described as the greatest advance in the treatment

since the advent of the Sanatorium : the description was true enough, but it took some years to demonstrate the limitations of A.P. therapy, which suffered no little disrepute by reason of its indiscriminate employment by enthusiasts who regarded it as a panacea. A somewhat similar story might be told of the growth of thoracic surgery, probably the greatest of all our achievements in the treatment of pulmonary tuberculosis, but, as its best exponents would be the first to admit, by no means the last word.

Adequate planning of treatment depends in many instances upon a real co-operation between physician and surgeon, an ideal principle which has too often been honoured in the breach more than the observance. Our general conduct of cases has been considerably modified by the advent of modern chemotherapy—and here again it must be insisted that, great as are the advantages of streptomycin and allied drugs, these are not, as many seemed to have imagined, the answer to the problem of pulmonary tuberculosis. It is conceivable that, apart altogether from the limitation to the scope of antibiotics imposed by the development of drug-resistance, we may not yet be aware of the potential harm that may result from the use of these remedies. Their indiscriminate prescription by many whose knowledge is extremely limited has already complicated our problems and has been responsible for a not inconsiderable amount of damage.

In the light of modern knowledge much of the ultimate success of the conduct of any individual case depends upon a proper assessment of the condition before the commencement of any scheme of therapy, and upon a well planned combination of all the various available remedies to suit the requirements of the individual. In some instances the scheme of treatment can be carried through more or less continuously without interruption. In others the plan may be stultified by unforeseen happenings outside our control. No hard and fast rule can be adopted in the treatment of a phthisical patient, and in cases in which the lesions are bilateral it is often

extremely difficult, and sometimes wellnigh impossible, to give more than a very rough estimate of the probable duration of treatment and of the extent to which return to normal active life may be anticipated. Tuberculosis of the lungs still remains a very serious disease, and, despite the undoubted successes of thoracic surgery, which have been responsible for the saving or for the prolongation of many lives which in former days would unquestionably have come to a premature end, prognosis is still a matter of uncertainty, and no physician or surgeon of experience will lightly venture upon a prophetic rôle.

Finally, we would remind our readers that in tuberculosis of the lungs more than in any other disease in medicine the peculiarities of the individual are always of importance, and there can be no greater mistake than that of treating the disease rather than the patient. In this respect it is true to say that many of the older generations of physicians, despite the limitations of their knowledge, were wiser than we. One has only to look at some of the ancient records of patients treated for advanced phthisis by prolonged rest, the only available remedy at the time, to realize how potent is the *vis medicatrix Naturae*, for which, it must be remembered, our modern remedies, however much they may reinforce it, can never be a real substitute.

Even the apparently cured, who have returned to many useful years of active work, are liable to relapse, and can never with safety be left without some degree of supervision, albeit at intervals of a year or more. Prognosis in this disease is notoriously uncertain, and estimates for the future can only be made in general terms and with a good deal of reservation and discretion. The advice given to the patient must rest upon the doctor's judgment, his knowledge of the individual, and his experience in steering a wise course between the Scylla of carelessness and the Charybdis of over anxiety. The care of the consumptive, whatever the advances of science, will always furnish one of the best examples of the art and vocation of Medicine.