

THE WONDERS OF SCIENTIFIC MEDICINE

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"Greater works than Chirst did were effected by the discovery of the drugs 'M and B' and penicillin."

—Dr. C. M. Chavasse, Bishop of Rochester, 1958

By studying carefully the history of one alone of the various diseases for which these drugs have been given—and that one an outstanding example, namely, gonorrhœa—we shall be in a position to judge to what extent we should bow down before the altar of scientific research and applaud the theological comparison suggested by Dr. Chavasse.

It may seem strange to some readers to learn that in spite of intensive research over the past seventy to eighty years very little is known concerning the organism associated with gonorrhœa—the gonococcus—which is recognized as a major cause of human suffering. Nevertheless, no less an authority than A. E. Wilkinson, a bacteriologist who has spent much of his working life dealing with this scourge, has declared this to be the case, and its correctness is vouched for in an Annotation to the *Lancet* (October 11, 1958, p. 788). The writer states:

"Up to the late 1930s there was no specific remedy and the treatment consisted in encouraging the natural immunity of the patient and establishing drainage when necessary." At this point "The introduction of sulphonamides marked a new era; the organism appeared highly susceptible, and complete conquest of the disease was confidently predicted." Unfortunately, this new Dispensation, as the Bishop of Rochester possibly would term it, did not come up to expectations, for we read: "Despite the sulphonamides, the incidence of the disease increased enormously in the 1939-45 war, and in the early 1940s it began to be evident that some strains of gonococci were becoming sulphonamide-resistant..."

In fact, "when the armies of North Africa invaded the Italian peninsular in 1943, resistant cases suddenly increased

alarmingly, and it soon became clear that the remedy had lost its efficacy." Moreover, reports began to flood the medical literature concerning the increasing frequency of late releases. In an article published in the *British Medical Journal* (December 2, 1939, p. 1080), entitled "Relapses after Sulphonamide Cure of Gonorrhœa," the authors stated:

"Quite recently (July, 1939) we analysed our records of 1,200 male and 2,000 female patients treated with sulphonamide compounds long enough to provide reliable information on remote results. This analysis reveals an incidence of late relapses sufficient to render unreliable any statistics of results based on relatively short follow-up." The authors, the Director and Assistant of the Venereal Diseases Department, St. Mary's Hospital, concluded that their experience made them reluctant to give any pronouncement of permanent cure at this stage of their enquiry.

Not only sulphanilamide and sulphapyridine (M & B 693, mentioned by the Bishop), but uleron, one of the last of the series specially claimed as successful in the treatment of gonorrhœa, came under these strictures. Yet only the previous year Surgeon Commander Walsh, in an article on the subject published in the *British Medical Journal* (July 30, 1938, p. 215), had quoted three German doctors (Grütz, Fischer and Felke) as being most enthusiastic about the value of these new compounds. He wrote: "They claimed their advent as the greatest advance ever made in the treatment of gonorrhœa, and were confident that the long-awaited solution to the problem of a speedy cure for that disease had at length been found." It should be noted, however, that as far back as 1936, according to Lawrence P. Garrod, M.D., F.R.C.P., (*Brit. Med. Jour.*, February 3, 1951, p. 205), some cases had been reported that refused to respond to the treatment. In his article, entitled "The Reactions of Bacteria to Chemotherapeutic Agents," he stated that "These originally resistant strains naturally became increasingly prevalent, and the proportion of treatment failures steadily increased, especially during the war, reaching such figures as 50 per cent. (Campbell, 1944), 77 per cent. (Abrahamson, 1945), and 85.8 per cent. (Dunlop, 1949)." Note: The symbol % was used in the original.)

No doubt it was the occurrence of such indisputable failures

that led the editor of the *Lancet* (August 18, 1945, p. 212) to remind his readers that 'the practice of therapeutics has many disappointments, and the cynical physician who remarked, 'let us use this new drug before it ceases to cure,' was smarting from the memory of past failures, and enthusiasms doomed to oblivion." However, he qualified this comment by declaring: "Yet some remedies have proved so efficacious that even enthusiasts could not discredit them; and penicillin is one of these."

For it was at this point that, as the *Lancet* annotation (October 11, 1958, p. 788), already quoted, pointed out, "The immediate problem was solved by the arrival of penicillin, to which the gonococcus proved highly susceptible. Symptoms and signs were abolished within hours by very small doses of penicillin; resistance to treatment was quite uncommon, and was soon overcome by larger but still moderate doses of the drug. The incidence of venereal diseases reached its peak after the war was over and thereafter declined sharply, the start of the decline coinciding with increasing supplies of penicillin. The solution of a serious problem seemed to be at hand."

Indeed, so sanguine was the climate of opinion in the years immediately following the war with regard to the new wonder-drug that one may take as typical of the conclusions of medical scientists of the time the well-known description of penicillin ascribed to Lord Moran, then President of the Royal College of Physicians. Addressing an International Conference of Physicians at the Royal Institution on September 8th, 1947, he referred to penicillin as the drug that "might be said to have made just safe for democracy." (*Lancet*, September 13, 1947, p. 397.)

If the opinion of a consultant in venereal diseases would seem more impressive, that of Surgeon Vice Admiral Sir Sheldon Dudley, K.C.B., M.D. London, F.R.C.P., F.R.S., undoubtedly fills this requirement. Writing in the *Lancet* (March 24, 1945, p. 370), he declared: "In future gonorrhœa should cause far less trouble in the Royal Navy than the common cold."

For some years this confidence in the success of penicillin persisted in spite of conflicting evidence and even became more explicit. Thus we find three authorities, writing from the Department of Venereal Diseases, London Hospital (*Lancet*, April 15,

1950, p. 701) referring to the fact that "The beneficial effects have been so obvious and so striking as to convince many that gonorrhœa is no longer a public health problem and no longer merits consideration as a subject for research." As evidence of this they quoted a *Report of the First Session of the World Health Organization Interim Commission* (1949) in which it was stated: "Antibiotic therapy appears to have transformed gonorrhœa from a disease of great chronicity with frequent recurrences, with great tendency to troublesome complications and protracted disability, to an infection readily amenable to treatment and with almost complete freedom from complications or *tendency to relapse*." (my italics, M.B.B.)

They also cited the opinion of J. F. Mahoney (*Journal of Venereal Diseases Information*, 1947, 28, 129) that "the only intensive investigative effort which appears to be warranted from the public health point of view lies in the field of prophylaxis." If the Bishop of Rochester had made his ill-advised comparison with Christ's healing achievements at this time, he might presumably have claimed some modicum of scientific evidence to support his derogatory statement. But, alas for the over optimistic announcements of the medical authorities of that time, caught up apparently in the general tidal wave of exuberant wishful thinking. How tragically wide-of-the mark some of the foregoing scientific opinions appear in the light of subsequent history. One would have imagined that even a fleeting recollection of previous medical miscalculations would have counselled greater caution before indulging in such premature prophecies. Even a glance at the *Lancet* Annotation (August 18, 1945, p. 213) might have proved salutary. For we find therein the mild and little-heeded warning that "the clinician will hold to some mental reservations when enthusiasts claim that penicillin has solved the gonorrhœa problem. He . . . has already seen undoubted relapses occurring some time after apparent cure. He is also mindful of the fact that the organism seemed progressively to increase its power to resist the sulphonamides. May it not learn to resist penicillin also? Time will show." And time indeed has shown!

It is to be noted that the three writers in the *Lancet* (April 15, 1950, p. 701) A. J. King, M.B. London, F.R.C.S., F. R.

Curtis, M. Sc., M. B. Leeds, and C. S. Nicol, M.D. London, M.R.C.P., were by no means in entire agreement with the authorities they cited as being whole-hearted believers in the perfect success of penicillin, for they proceeded to recount their own failures. Summarising the results of the treatment of 1447 males and 432 females, all given 150,000 units of sodium penicillin in 5 doses of 30,000 units at intervals of two hours, they recorded that 94 men (6.4 per cent.) and 15 women (3.5 per cent.) were immediate failures; of the remaining men 276 (19.1 per cent.) developed purulent discharge during observation after apparent cure; a further 270 (18.6 per cent.) showed evidence of residual infection. Thus, "late failures" amounted to 546 (37.7 per cent.) of cases treated.

Of the remaining women, 56 (13.4 per cent.) showed evidence of infection during observation two weeks or more after treatment. The authors pointed out that of these failures the major proportion could not be accounted for by re-infection; they concluded that "penicillin is less effective in the treatment of acute uncomplicated gonorrhœa than it is generally reported to be." Which is putting it mildly. Does it not seem strange, nay unaccountable, that in this very same issue of the *Lancet* the editor should write (p. 719): "The tests of time and experience seldom justify the enthusiasm which new remedies so often arouse. Penicillin provides an exception to the rule... In the treatment of gonorrhœa, for example, it rapidly abolishes the obvious symptoms and signs; the complications, once frequent and intractable, are now relatively uncommon, and there is no evidence that strains of gonococci have become penicillin-resistant." It is this conflict of opinion that renders any attempt to give a coherent account of penicillin treatment particularly difficult.

It remains to record that the decline in the incidence of gonorrhœa did continue until 1955 when, to the consternation of many health authorities, an increase started and, according to Dr. A. King (*Lancet*, 1958, i, 651), the rise has not only continued but accelerated. In the *Annual Report of the Ministry of Health (Part II) on the State of Public Health in 1957*, the chief medical officer, Sir John Charles, recorded a steep rise in the number of

(Continued on page 375)

This brings us to conclude that if a Homœopath works as team member of the rehabilitation team he can do a lot for the crippled and down trodden children—the victims of the poliomyelitis. *(Concluded)*

BIBLIOGRAPHY

1. Diseases of the Nervous System—Dr. Russel Brain.
2. Principles of Neurology—Dr. Walshe.
3. Neurology—Dr. E. A. Blake Pritchard.
4. Outlines of Orthopædics—Dr. John C. Adam.
5. Materia Medica—Dr. Kent.
6. Materia Medica with repertory—Dr. W. Boericke.
7. Homœopathic therapy of Poliomyelitis—Dr. J. Fallex.
8. Tidy's manual of massage and remedial exercises in medical and surgical conditions—J. O. Wale.
9. Principles of Physiotherapy in medical conditions—Cash.
10. Practical Homœopathic therapeutics—Dr. Dewey.

THE WONDERS OF SCIENTIFIC MEDICINE

(Continued from page 361)

new cases of gonorrhœa in both sexes attending the clinics when compared with the previous year: from 16,377 to 19,620 in males, and from 4011 to 4761 in females. The report concluded that penicillin cannot by itself make a lasting impression on the incidence of this disease. One might truly term this a masterly understatement of the case. Even when treatment was changed from penicillin to streptomycin the failures recorded at the Liverpool clinic increased from 2.3 per cent. in 1954 to 4.9 in 1955 and to 7.0 in 1956.

—*The Layman Speaks, Aug., '59*