Book Reviews


This book, which is something of a landmark in the modest British literature of poliomyelitis, must be put in its setting. For over a century orthopaedic surgeons have been dealing with poliomyelitis as a crippling disease; they were familiar with the appalling deformities that it can cause and became skilled in their correction. Then, after the first world war, legislation on the care of children, together with the teaching of Robert Jones and Girdlestone, opened the way for the prevention of crippling of all kinds. Clinics attached to orthopaedic hospitals enabled orthopaedics to be taken to the patient and so made it possible for treatment to be started before the great crippling diseases of childhood—joint tuberculosis, poliomyelitis and rickets—had caused serious deformity. At the same time there was growing interest in recovery from poliomyelitis during the convalescent phase, and it became customary for orthopaedic centres throughout the country to admit children and adults within a few weeks or months of the onset of the disease. Consciousness of the ever-present menace of deformity led many surgeons to rely on splints as a means of preventing it; and it was some time before the evil effects of the fixation that usually went with this type of treatment were fully appreciated. However, more rational methods were developed with the object of preserving mobility. Thus it may be said that the interest of orthopaedic surgeons in poliomyelitis started in reverse. They were concerned first with deformity and how to correct it, then with methods for its prevention and lastly with the treatment of the disease in its early stages.

The approach of the physician has been different. The order was poliomyelitis as an infectious disease, then as a diagnostic problem in neurology, and lastly as a cause of more or less physical disability. This is well illustrated in the greatest of all the British monographs, that by Batten published in 1916. In the United States Peabody, Draper and Dochez (1912) had already tackled the problem in the same way. Ritchie Russell’s essay is in the same tradition and herein lies its value. He has not attempted to cover the subject exhaustively and has dealt rather with those aspects of it that are of particular interest to him. His chapter on the nature of the disease is rightly based on recent American work which is undoubtedly the best of its kind. When he comes to the clinical features of poliomyelitis he speaks from personal experience and this chapter is probably the best of all. It is now known that a number of things influence the site, extent and severity of the paralysis, in particular injury, exercise and certain prophylactic injections. Ritchie Russell discusses all three with authority, and especially his original contribution on the influence of exercise during the pre-paralytic phase. He has also devoted much thought and effort to the care of the patient suffering from bulbar disease and there is no question that if his recommendations are carried out the mortality from poliomyelitis can be appreciably reduced. In the last two chapters he reaches the point where the orthopaedic surgeon usually comes in, namely, the care of muscles and joints and the great problem of rehabilitation. On the basis of Bodian’s work he feels justified in starting active exercises at a very early stage, the supposition being that the havoc caused by the virus is over and finished with in a month from the onset of the disease. This hypothesis disregards the histological evidence of other observers such as Einarson; the persistence of abnormalities in the cerebro-spinal fluid; the comparatively long time, about four months, before the electrical excitability of affected muscles becomes stabilised; and the loss of power that has been observed in these muscles after strenuous exercise. The exercises he recommends are pushed to the point of fatigue. On his showing it would appear that this treatment does no harm, but he produces no convincing evidence that it does good, and this work, unlike his earlier investigation of the effect of exercise on the extent and severity of paralysis, is uncontrolled. He has nothing to say about the causes of deformity; this, perhaps, is not surprising, because his study of poliomyelitis has not extended to its late effects.

Serious doubts, such as I myself must feel, about Ritchie Russell’s views on the treatment of paralysed and weak muscles, should not blind us to the merits of the monograph as a whole. It is written with clarity and enthusiasm; it should help all of us, in the new responsibilities that recent epidemics have imposed, to recognise poliomyelitis in its early stages, to be on the look-out for and to treat promptly those manifestations of it that threaten life, and to take a more comprehensive view of this sinister and yet fascinating scourge that threatens all civilised communities.—H. J. Seddon.