

THE ORTHOPAEDIC ASPECTS OF POLIOMYELITIS

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Reconstructive measures to overcome shortening should be considered as soon as it is evident that the conservative treatment is no longer sufficient. Manipulation of the feet under anesthesia to stretch the calf structures is probably the most common procedure, with fixation in plaster afterward until the reaction has subsided. If the contractures are old, careful open lengthening of the aponeurosis of the calf or of the Achilles' tendon must be done with concentrated physiotherapy and muscle reeducation started again as soon as feasible. Treatment does not stop when the ultimate in recovery of muscle function has been reached but must be continued until the patient has learned to coordinate what is left of muscle power to the fullest. When this is faithfully carried out, the number of mechanical appliances or braces needed in any specific group is reduced to a minimum, and the indications for orthopaedic operations become much fewer than formerly.

There probably always will be a small residual group of cases (small as compared to the total number in any epidemic) who will require operative treatment in the end to lessen their functional disability, regardless of the excellence of the early therapy. The procedures to be used on this group are almost innumerable, and the specific nature of the operations is a purely orthopaedic problem in which you are not particularly interested.

When the end result in any case can be accepted as probably final, the individual must be helped as much as possible to resume a normal life within the limits of the remaining disability and should have all emphasis removed from the fact that he is or has been a cripple. Two of my old patients who had had feet stabilized by operation some years before for residual paralysis below the knee went through active service in the late war (one of them was wounded) without any apparent disability. They certainly pay little attention to their handicaps.

In summarizing the Orthopaedic Aspects of Poliomyelitis I believe it is evident that this disease emphasizes as much, if not more than any other condition, the basic principles of our specialty which lay so much stress on the preservation of function and the prevention of deformity. We aim first, to prevent shortening of muscles and contractures, and as a corollary, keep deformities to a minimum; secondly, to reeducate remaining muscle power by meticulous attention to muscle action and coordination; and thirdly, by mechanical or operative measures, to better the function of the extremities, where possible, beyond that obtained by conservative means. I believe that by following the Kenny concept of treatment during the acute and convalescent stages fewer cases will require mechanical or operative treatment in the end, always accepting the fact that flaccid paralysis is not directly influenced by this treatment.

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