

muscular power was disguised by the existing spasm in the muscles themselves or in their antagonists. Most authorities on poliomyelitis regard the restoration of function which occurs in some of the originally affected muscles as a perfectly normal phenomenon. A knowledge of the pathology of the disease enables one to understand just why this recovery should take place spontaneously in some cases.

According to Sir Jas. Purves-Stewart, in the 3rd or paralytic stage there is hyperaemia and perivascular infiltration, especially of the anterior horns, for which the virus has a special affinity. The anterior cornual cells become oedematous and inactive and, if degeneration of these cells supervenes, the corresponding muscles undergo permanent paralysis and atrophy. With reference to this, Cholmley observes that only certain of the anterior horn cells will be destroyed, but owing to the oedema in the affected area, neighbouring nerve cells may be temporarily put out of action and on this account, the acute paralysis may be more extensive than the final picture, **even without treatment.**

Mennell is even more definite. He states that it is a well known fact that, however complete the paralysis may seem at first, some return of power at a fairly early date is usually to be expected. In other words, some of the fibres are paralysed, not by disease of the nerve cells to which they owe their innervation, but because these cells are in close proximity to others which have suffered. Unless the utmost

care and attention is paid to these cases, not only do these muscle fibres fail to recover whose nerve supply is destroyed, but also those fibres whose nerve cells were temporarily affected.

In the light of these views, it seems reasonable to assume that in the cases quoted by Lannon, spasm developed in the antagonists during the period when the agonists were still paralysed by the pressure on their anterior horn cells. On etamon being administered, this spasm disappeared and the return of muscular power became apparent.

With reference to Lannon's observation that spasm in the muscles themselves may have disguised the return of muscular power, this is a very moot point. Despite a certain amount of credence being accorded to Sister Kenny's assertions to this effect, her claims have never received the unqualified support of the medical profession as a whole.

In conclusion, it must be stated that, regardless of how Mr. Lannon's theories are viewed, the fact remains that if etamon actually does produce complete relaxation of the antagonists in poliomyelitis, a most useful weapon will have been made available in dealing with the early painful stages of the disease. Of particular interest to physiotherapists is the fact that use of the drug will enable efficient and progressive physiotherapy and re-education to be instituted at the earliest possible moment.

It is understood that Mr. Lannon is to publish a more comprehensive report in the near future.

THE POLIOMYELITIS RESEARCH FOUNDATION

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In recent months a nation-wide organisation has been formed under the title of the Poliomyelitis Research Foundation.

Headquarters of the National Committee of the Foundation is in Johannesburg, and already local committees have been formed in many of the principle centres of the Union.

While this body will be primarily concerned with research, it is felt that it deserves the interest and support of physiotherapists. We therefore recommend it to all, and especially to those who have occasion to deal with the victims of poliomyelitis in the normal course of their work.

The National Organising Secretary of the Foundation has supplied the following explanatory article which not only deals with its aims but also points out a suggested means for organising local committees.

Epidemics of poliomyelitis are occurring with increasing severity in Europe, America and Asia. The Union of South Africa had its first epidemic as recently as 1944-45, followed by a second, then a third considerably more severe, in the summer just past. It is virtually certain that unless preventive

measures can be instituted we shall have a series of epidemics of increasing severity as has occurred in other countries.

Poliomyelitis has become the most serious of the epidemics threatening humanity. Unlike the other major epidemic diseases, medical science has not yet

been able to supply weapons for combating epidemics of poliomyelitis, since the mode of spread to patients has not yet been worked out, and a safe effective vaccine is not yet available. Valuable research carried out in America, Europe and at the South African Institute for Medical Research has, however, brought us within sight of the necessary information required.

The research is particularly costly because it involves innumerable experiments and expensive equipment. South Africa is particularly favourably placed for prosecuting this research, because, amongst other things, of its multi-racial population. A large section of one group—the Bantu—has shown remarkable immunity to the disease during our three epidemics. Further study of this apparent immunity is likely to produce valuable information. South African Virus Research workers who have already established high repute in the world of medical science, will be made available to investigate the disease.

The public will no doubt recall the great distress and anxiety caused to parents of children at the time when the last epidemic had reached such proportion as South Africa had previously never seen, and it is

recognised that once the disease has assumed epidemic form recurrences of increasing severity can be expected.

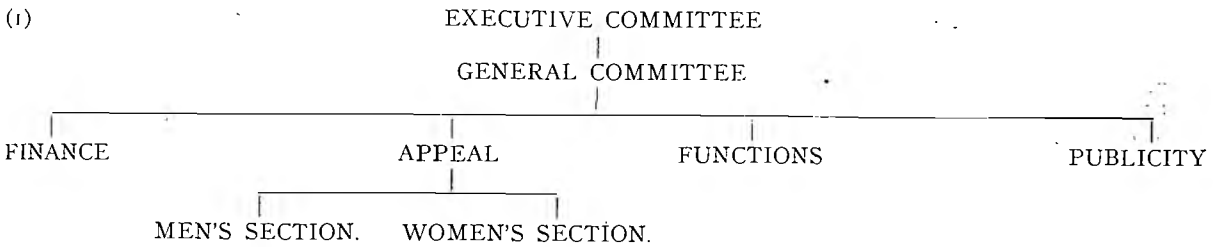
How different would have been the crippling effects of the last epidemic had we known more about its cause, prevention and cure.

Because of the specially favoured position in which the Union finds itself the Poliomyelitis Research Foundation has been set up to provide the necessary funds to make a large-scale research possible. Already over £20,000 has been voluntarily contributed before the collection campaign has even been launched. It is estimated that approximately £500,000 will be required to erect and equip laboratories on the most modern lines and to staff them with highly trained personnel, and the Government will be approached to contribute to this worthy cause on the £1 for £1 basis.

To solve the problems of the disease is the aim of the Poliomyelitis Research Foundation, and when we succeed we not only will save our children from crippledom, but the whole world will be for ever grateful to South Africa.

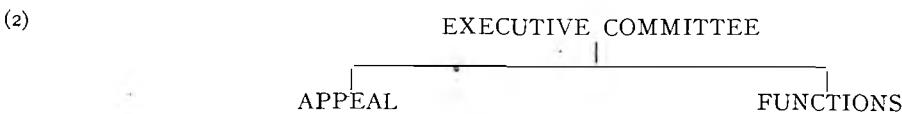
Suggested Means for Organising Local Committees

We give below two suggested forms for organising Committees, the one for large Committees and the other for smaller Committees :—



- (a) The EXECUTIVE COMMITTEE controls the various Sub-Committees and the general policy of the local effort. This Committee includes the Chairman, Vice-Chairman, Treasurer, Secretary and Chairmen of Sub-Committees.
- (b) The GENERAL COMMITTEE is formed of all members working for the appeal in the town and members of the Sub-Committees are drawn from here.
- (c) The SUB-COMMITTEES are self-explanatory, but it should be pointed out that the Appeal Sub-Committee has been divided into two, as the men's section of this Sub-Committee will approach the businesses in town, and the women's section will organise house to house collections.

The Chairman and Vice-Chairman of the EXECUTIVE COMMITTEE hold the same office for the GENERAL COMMITTEE, and these two together with the Hon. Treasurer and Secretary are ex-officio members of the Sub-Committees.



- (a) The EXECUTIVE COMMITTEE will in this case control the Finance and Publicity of local efforts with two Sub-Committees which are self-explanatory. It should be pointed out that the above are merely suggestions and can be amended to suit local conditions.

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