

INFANTILE PARALYSIS (EPIDEMIC POLIOMYELITIS).

A MESSAGE TO PARENTS AND PATIENTS.

Prepared by the Committee on After Care and Study of Infantile Paralysis of the Visiting Nurse Association of Chicago.

NATURE OF THE DISEASE.

Infantile paralysis (epidemic poli-o-my-e-litis) is caught by one person from another like measles and scarlet fever, and, like them, it is mostly a children's disease, although older people sometimes have it. It is not so catching as most of our contagious diseases. Although it is a germ disease we do not know the exact way it is caught, but keeping those sick with it separate from the well for three to four weeks, as is done by the Health Department quarantine, seems to be the best way to keep it from spreading.

SYMPTOMS.

The child is usually quite sick with fever and vomiting for two or three days before paralysis of the legs or arms appears, the paralysis being the first sure symptom of the seriousness of the disease. In times of epidemics from fifteen to twenty-five out of a hundred children stricken die during the early stage from exhaustion and paralysis of the muscles which regulate breathing. It may be a week or even more before the paralysis shows. In those that live a very few muscles may be affected, and those only slightly, or the paralysis may be so bad that most of the muscles of the limbs and body are affected.

THE DAMAGE IS IN THE SPINAL CORD.

In the usual form of the disease the spinal cord is the part damaged, and it depends on how badly it is damaged whether the child gets well or remains badly paralysed.

The nerves that control the muscles start in the spinal cord. If the cord is but mildly inflamed and there is a little paralysis only, the child may recover completely in a few months, owing to the fact that no lasting damage was done to the cord. On the other hand, a severe inflammation in any part of the cord may injure it past recovery, and so cause permanent paralysis of the muscles that are controlled by that part of the cord. The child may appear no worse with one form of inflammation than the other, and the doctor cannot tell till later what the result of the disease will be. Some improvement takes place in almost all cases that live. There are mildly inflamed spots and severely inflamed ones in the same cord. The mildly inflamed improve a great deal, and the others do not. So when we hear of miraculous

cures of infantile paralysis we must understand, if such cures really do happen, that the spinal cord had not suffered permanent damage, and the so-called cure was because the patient would have got well anyhow.

TREATMENT.

There is no convincing evidence so far that any medicine, serum, or other means generally available have any effect in lessening the paralysis, but we do know that beginning early to control the position of the limbs and prevent the use of the muscles are the most important things in treating it. The treatment in Chicago is usually begun while the child is in quarantine or during the first three weeks in hospital, when the cases are under the care of specialists who foresee deformities and disabilities likely to come from the loss of power in certain muscles or groups of muscles. For instance, if all the muscles passing in front of the ankle are paralysed, the strong muscles at the back of the foot will draw the foot up in back and make it point downward in front, and the patient will walk on his toes. Or if those on one side of the foot are weakened and those on the other side are normal, the foot will be turned toward the normal side and so deformed.

All these deformities can be prevented by the early use of some apparatus or appliance that will hold the part in the normal position for a long time—many weeks or months following the attack. Deformities of the limbs and body, including severe curvatures of the spine, are prevented in this way. In fact, a deformity after infantile paralysis nowadays, unless the limb is atrophied (or practically dead), means that either the doctor or the parents have neglected well-known methods of treatment.

Prevention of deformity, however, does not insure return of muscle power. Nothing can bring this back if the spinal cord has received lasting injury, but the prevention of deformities does help the paralysed parts to work to their best advantage by protecting the remaining muscles from constant stretching or from being used too much.

So the after-care of infantile paralysis is:

1. To prevent deformity and protect the muscles in the injured part from too much use or stretching.
2. To take up the use and development of the injured muscles and try to bring them back to normal working.

The appliances used to prevent deformities are braces, splints, plaster of Paris casts, corsets, &c.

Lying in bed for many months is one of the

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