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This form of paralysis makes its appearance after the more severe symptoms of the constitutional malady have passed. In the case of diphtheria, which disease furnishes the largest number of these temporary paralyses, the affection is first noticed in the difficulty of deglutition. The muscles of the soft palate are, for the time being, useless, and as a result the food, during the process of swallowing, regurgitates through the nose. Sometimes the muscles of the eyes are affected, causing strabismus and difficulty in co-ordination. When the diphtheritic toxin affects the muscles of the heart, the condition is much more serious and the symptoms are not so readily recognised. When the loss of muscular power is extensive, the lower limbs, and sometimes the respiratory muscles, are apt to be involved.

For the slighter forms of paralysis, such as those of the palate and eye muscles, no treatment is required: the nerves regain their function in a few weeks. When, however, the difficulty in swallowing is so severe as to interfere with nutrition, we must resort either to nasal feeding, or the administration of nutrient enemata. It is well to note, that solid, or semisolid, food is not so apt to pass upward through the nose, as the liquid foods ordinarily given in these diseases. The cardiac paralysis, following diphtheria, is the *lête noire* of the physician and the nurse. As it does not give indubitable evidence of its presence one must be always on the look out, and so manage the case as to place upon the heart the least work possible. Having this condition clearly in mind, and remembering the probability of cardiac paralysis following every severe case of diphtheria, the nurse will observe, in the management of the patient, those rules which experience and common sense have dictated. The child must not be suddenly alarmed, for any sudden disturbance makes the heart beat faster, or what amounts to the same thing, contracts the minute blood vessels and compels the heart to beat harder and more rapidly. As there is least resistance to the circulation when the person is lying down it is clear that the recumbent position is the best for such a patient. And it should not be forgotten, that this danger of heart paralysis often remains for three or four weeks, after the child has apparently recovered from the diphtheria.

Infantile spinal paralysis, that gravest form of paralysis in childhood, is due to a diseased condition in certain cells of the spinal cord. It may not be unprofitable, in considering this disease, to view briefly the nervous mechanism by which the muscles of the limbs are moved. In the anterior columns of the spinal cord are certain groups of nerve cells through which, and from which, pass the nerves that supply the

various muscles of the legs and arms. Of course, anyone who has any acquaintance with physiology knows, that no muscle can contract unless stimulated to action by a nerve, and no nerve can perform its function of stimulating muscles unless its origin—the nerve centre—is in a healthy condition. When these cells in the anterior columns of the cord become diseased by inflammation, or otherwise, all the muscles depending for nervous stimulus upon this centre are rendered useless, in other words paralysed.

The symptoms of infantile spinal paralysis do not always manifest themselves in the same manner. Usually the previous health of the patient is good. In a large number of cases the disease is ushered in by fever and delirium of short duration. Sometimes the child retires in perfect health, and wakes in the morning with one or both lower limbs paralysed. One peculiar feature of the disease is that, so far as the paralysis is concerned, the symptoms are at the maximum in the beginning. Whatever change there is afterward is in the line of improvement. Since only the voluntary muscles are affected, the continence of the bladder and rectum is not impaired. Neither is there any disturbance of sensation. The explanation of this is that the posterior columns, whence arise sensory nerves, are unaffected. After the lapse of a few weeks we see that certain muscles, usually those which move the foot, have become the favourite seat of the paralysis, and that little improvement takes place in them thereafter. In most cases improvement up to a certain point may be confidently expected.

When three or four months have passed, it will be observed the affected muscles are beginning to atrophy, and as time progresses the limb will be seen to be shorter than its mate.

The treatment of this disease resolves itself into such measures as shall prevent as far as possible the wasting of the muscles and for this purpose galvanisation, and massage, are the therapeutic agents to which we must look. The application of electricity should not be made until after two weeks have passed. This will afford time for the inflammatory symptoms to abate somewhat and also to define the extent of the paralysis. But in these matters the nurse must, of course, be guided largely by the directions of the attending physician. Whatever can be done to make the little invalid more comfortable should be done by the nurse.

Paralysis due to compression of a nerve trunk, or to reflex influences, is properly treated by removal of the cause. When dependent upon degeneration of muscular fibres the difficulty is more rebellious to treatment. Massage is then indicated.



