

The Nursing of Locomotor Ataxy.

Locomotor Ataxy (*tabes dorsalis*) is a disease of the nervous system, the principal symptom of which is the disordered movements of the limbs in locomotion. The affection is not a paralysis in the correct sense of the word, as there is no loss of muscular power, but there is a loss of that power of co-ordinating the muscles of the body which is essential to the proper performance of all voluntary movements. Generally, the disorder is more noticeable in the lower extremities, but often there is more or less inco-ordination of the upper limbs. Where this is so the hands cease to perform their movements with their natural neatness, and the patient is unable to pick up small articles, or fasten buttons, and in some cases is unable to guide food to his mouth. Notwithstanding this helplessness, there is no loss of muscular power in the hand, which is still capable of grasping as firmly as before. This absence of harmonious action is particularly manifested when the patient is requested to place his forefinger on his nose. The easy movement of health gives way to a series of jerks as each muscle comes into action, and in advanced stages of this disease, the hand may go in any direction but the one that is desired. If this movement is performed with closed eyes, the inco-ordination is still more marked.

Locomotor Ataxy generally begins insidiously, and progresses very slowly during a number of years. Amongst the earliest symptoms are, severe shooting pains in the limbs, accompanied by changes of sensibility. Sometimes there are areas where sensibility is increased, and sometimes there is a numbness of certain parts of the body. Often there is atrophy of the optic nerve, partial or complete, causing disorders of vision and blindness. Bowel and bladder trouble also occur. If standing erect with his feet together, and he is asked to close his eyes, the sufferer immediately commences to sway and totter, and if not supported would fall to the ground. This again is the effect of defective co-ordination, and not of any weakness of the motor power of the muscles. This peculiarity of *tabes* is known as the *Nomberg* symptom, and is often the first thing noticed by the patient. He may be leaning over a basin while washing himself, and notices that when his eyes are closed he tends to fall forwards into the water. These initial symptoms may continue for any length of time, but gradually others are added. The gait assumes its peculiar and typical character. Each leg is lifted well from the ground, and thrown out in front with a jerk. The heel

descends forcibly, the sole following at a longer interval than in the normal gait. The steps are short and hurried, and as he requires the aid of his vision to preserve his equilibrium he looks at the ground a little in front of him as he advances. Patients will speak of a "cotton wool" feeling at the soles of their feet. They feel as if they are walking on a very thick carpet. As the disease progresses the disorder of movements increases, and ultimately all efforts to walk have to be abandoned, and the sufferer becomes bed-ridden. The shooting pains increase in severity, and gastric crises occur. The latter are attacks of acute pain in the stomach, accompanied by severe vomiting.

All these symptoms are due to a diseased condition of the posterior columns and nerve roots of the spinal cord. The disease generally affects the dorsal and lumbar portions of the columns, and the ataxic condition is chiefly confined to the lower extremities, but frequently the cervical region of the cord is affected, with the result that the arms become involved. Although usually steadily progressive, the disease is sometimes arrested, especially in the earliest stages, and even when the ataxic stage has been reached, great improvement results from massage and systematic exercises. Electricity in the form of the galvanic current has been recommended by many specialists. The exercises particularly suited for tabetics are those known as *Frenkel's*, the idea of which is to allow the patient to perform certain natural movements, using his vision to guide his legs in place of the lost sense of position.

The apparatus consists of two oblong boards, one for the extension and flexion movements, and the other for the lateral ones. One of the boards is pierced with a number of holes down the centre, and is placed longways under one leg of the patient. He should now be directed to raise his leg as high as possible, and then by lowering it slowly and carefully, place his heel in each of the holes in turn. Here we get movements at different degrees of extension. The second board has a raised flange, running along the centre, the upper edge of which has a series of semi-circular slots at intervals along its length. This apparatus is placed at right angles to the patient's legs, with the heels resting in the slots. The adduction and abduction movements can be practised with this, each leg being raised at its full extent, in turn, and the heel then slowly lowered and placed in each of the slots in succession. Great improvement has resulted from the use of these exercises, which, however, to be of use, must be carried out slowly and carefully, and discontinued at the first sensation of fatigue. As the

[previous page](#)

[next page](#)