Moritz Heinrich Romberg is best remembered for the neurological sign that bears his name. Less widely recognized is his role as a founder of modern neurology. One of the earliest physicians to specialize in the neurological disorders, Romberg had established an active neurology clinic at the University of Berlin by 1837 and wrote the first major textbook of neurology, published in segments between 1840 and 1846.

In this outstanding work, which was translated into English in 1853, Romberg presented his classical description of tabes dorsalis. Despite the fact that syphilis had been introduced into Europe in the 15th century, cases of true tabes dorsalis apparently had not been described in medical records until the 19th century. Romberg presented the first organized account of this disease, although he did not recognize its relationship to syphilis and he did not clearly distinguish ataxia from weakness.

In his account of tabes dorsalis, Romberg described a sign that he thought was pathognomonic of the disease—he, the loss of balance demonstrated by the erect patient when his eyes are closed. This phenomenon, now known as Romberg's sign, has subsequently been found in other conditions, but some confusion has arisen because of failure to heed Romberg's original description.

VI

Romberg's Sign

Romberg stated that the patient begins to sway when he closes his eyes, implying that he does not sway when his eyes are open. Consequently, most patients with tabes dorsalis cannot be said to have Romberg's sign, since they sway with the eyes open or shut.

Romberg's sign has value as an indicator of altered position sense, whether caused by tabs or some other neurological disease, and testing for its presence has become a routine part of the neurological examination.

References


The first symptom by which it is manifested is a difference in the movements themselves; the patient experiences a greater difficulty in executing forced and limited movements, than those in which he merely follows the impulse of his inclinations; he finds it much more laborious to walk slowly with a given step in a given direction, than to let his feet take their own course; rising from the chair, or going up stairs, is more difficult than sitting down or descending; the most difficult manner is to turn round in walking. After prolonged rest, walking and standing are more laborious and insecure than when once begun. The loss of muscular power is also manifested in organs provided with a sphincter, and especially in the bladder. At the commencement of the disease, the desire to micturate occurs more frequently, and cannot be gratified soon enough, for the patient is unable to retain his urine still the urethra is brought to him. Enuresis not infrequently occurs during sleep. The urine is not discharged in an arched jet, as in health, but falls more perpendicularly; nor is the bladder entirely emptied. Constipations prevail almost universally; the patient feels that he is unable to strain as long and as forcibly as before. Painful sensations of different kinds almost irrevocably accompany the affection; the most common is a sense of fulness, which proceeds from the dorsal or lumbar vertebrae, encircles the trunk like a hoop, and not infrequently renders breathing laborious. Several of my patients have described this sense of fulness, which is troublesome during sleep, causing them suddenly to start up and scream out. Others complain of a heavy weight pressing upon the rectum and the bladder, others of colic and gastric pains; the majority suffer from pain shooting through the legs, and a sense of pricking, itching, burning, or cold in the skin of the lower as well as of the upper extremities; the face alone is an exception.

The symptoms may endure for a considerable time, and at first they attract little attention. After an uncertain period the weakness of the legs diminishes visibly. The patient becomes subject to the threatening loss of balance, is obliged to overstep his feet, and walks with his legs apart; he leaves his heels as long as possible in contact with the ground, and keeps his knees bent; he is still as unable to propel himself, (one of my patients stated to me, that he found it necessary to think of every one of his movements,) and to tolerat the streets, but if arrested in his progress, he is unable to stand still without clinging to some support. The patient's own strength now fails to support him, and he is obliged to...
have recourse to assistance. The necessity of employing his eyes becomes more and more urgent; if he closes his eyes, even while sitting, his body begins to waver, and faint; in one case the patient was unable to maintain himself erect in his chair, and slid down to the ground; when in an horizontal posture, the patient is no longer able to recognize the slightest sensation of his progression when led from the light to the dark department. The condition of these unfortunate individuals is rendered the more distressing by the circumstances that embleness often supervenes; in many cases it is associated with the disease from the commencement. Even when the optic nerve was not implicated, I have repeatedly found a change in the pupils of one or both eyes, consisting in a contraction with loss of motion, which, in one case, that of a man aged 49, attains to such a height that the pupils were reduced to the size of a pin's head. In one case, where there was no cerebral affection, a staphylion—towards the inner angle took place, the patient at the same time being able to move his eyes outwards as will. As the disease progresses, the loss of power also extends to the superior eye-sockets, though they are not affected to the same degree as the inferior. The sphincter of the bladder becomes completely paralyzed; erections cease, and the virile power becomes extinct. The intellect of these patients generally remains unimpaired; the majority do not complain much, and they are inclined to represent their condition, especially to the medical man, in a too favorable light; if they are members of the higher classes, they anxiously endeavour to conceal their loss of motor power, in order to avoid the evil reputation of being affected with tabs dorsalis. Nutrition is not impaired in a measure corresponding to the diminution of motor and sensory power. Such patients may even retain their entire employer for a considerable time, so that the term tabs does not apply to this feature. At a later period the muscles become flaccid and atrophied, especially about the nose, the legs, and the back. Towards the termination of the disease the patient becomes utterly incapable of holding himself erect or moving; still he continues able to execute movements with his feet at will when the trunk is supported. Diarrhoea alternates with inertia; the faces pass off involuntarily. Gangrene at the same time was constantly observed. The disease is accompanied by fever and by a greyish-yellow colour. The posterior roots of the nerves were deprived of their nerve matter, and presented a watery appearance. From the middle of the dorsal nerves upwards, the atrophy passed into a healthy condition. The anterior columns and roots of the nerves presented no abnormality. In one case of this sort, I examined a young man, aged 24, who had been under my care for three years for tubal dorsalis, and found the lumbar, the cervical, and a portion of the dorsal region of the cord of an almost fluid consistency; it was traversed by a number of white longitudinal fibres, as if a delicate cauda equina passed through the cord. The meninges rarely retain their healthy condition; the cord is thickened and bent with catarrhal and osseous plaques, and contains more or less serum. It is exceptional to meet with membranous changes in the osseous envelopes.

Two circumstances that have been observed with certainty to predispose to tabs dorsalis are of some interest. One is male sex and the period between the thirtieth and fiftieth year of life. Scarce one eighth of the cases are females. The loss of semen has always been looked upon as the most fruitful source of the complaint; but this in itself does not appear to be a matter of much consequence as influencing the disease, as patients who have been libidinous under spermatorrhoea for several years, are much more liable to hypochondriasis and cerebral affection than to tabs dorsalis; but when combined with hypostimulation of the nerves to which sexual abuse gives rise, it not unfrequently favours the origin and the early development of the disease after it has commenced. When the strength is much taxed by continued standing in a bent posture, by forced marches, and the cathartic influence of strong beverages, followed by drunkenness and debauchery, as it is so often the case in campaigns, the malady is rife; this is the reason why tabs dorsalis was so frequent during the first decade following the great war of the present century. Rheumatism appears to be the morbid process which most frequently gives rise to it. The cases are not rare in which the most careful examination fails to establish an exciting cause.

There is no prospect of recovery for patients of this class; the fatal issue is unavoidable; the only consolation that can be offered to those fond of existence is the long continuance of the disease. If in any case the busy activity of the physician increases the sufferings of the patient, it is in tabs dorsalis. When one of these unfortunate individuals presents himself to us, we generally find his back seamed with cicatrices, he brings us a heap of prescriptions, and gives a long list of the watering-places he has visited in search of health. It is but common humanity to inform him at once that therapeutic interference can only injure, and that nothing but the regulation of his diet can arrest the incessant issue. Every unnecessary tax made upon the motor powers, as well as sexual excitement, ought to be strictly prohibited. The best remedy for the obstinate constiveness is to be found in the use of cold water: in this respect, the careful use of cold water in washing the trunk and spinal cord, and in the shape of affection to the latter, may be recommended. I have employed an ointment containing mercuric oxide against the painful sensations in the back and extremities. The thing most to be avoided is the frequent application of cupping and issues; nor are long journeys to watering-places advisable, because the driving itself is injurious, and the baths will only afford temporary relief, which will disappear on the return of the patient. Incurable patients should be allowed to spend their lives quietly in their family circle, that their last moments may be soothed by the fond cares of those whom they love.