of dilatation. I did not pass a tube or inflate the stomach in any way and I think that such a procedure, in view of the outcome of many of the cases of tetany where this has been done, would have been wholly unjustifiable.

In acute conditions of the stomach tetany is much less frequent. It has followed acute indigestion and overloading the stomach in delicate and feeble people. In children⁴ with tetany the attacks are often associated with alimentary disturbance.⁵ It has been reported in cases of chronic gastric indigestion, the spasms coming on repeatedly after overloading the stomach.⁶ It is, however, at least rare in otherwise healthy adults with simple acute indigestion. In my case the cause seems to have been acute gastric indigestion, due to greatly distending the stomach with improper food, possibly aided by the gas from two Seidlitz powders.

A CASE OF ATAXIC PARAPLEGIA DEVELOPING UNDER CIRCUMSTANCES OF UNUSUAL INTEREST.¹

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In the great majority of cases where persons are afflicted with nosophobic tendencies their fears are mainly remarkable for the small possibility of realization. The following case, which occurred in the practice of Dr. T. M. Gallagher of Newton, is of interest as a striking exception to this general rule. The patient is an unmarried woman of thirty-six. She was born in Ireland, and is by occupation a domestic. Her family history is negative as to nervous and mental disease. Her previous history is free from sickness of any kind since childhood, and she has never considered herself of neuropathic temperament. The trouble from which she at present suffers had its inception five years ago when, in her employment as domestic, she was thrown much in contact with her employer's wife, an elderly woman, who was crippled with rheumatism and who finally succumbed to cerebral hemorrhage, of which she had had several attacks. After one of these attacks the old lady became very emotional and was subject to seizures of uncontrollable laughing and crying, which made such a powerful impression upon the girl that she grew to be haunted by the dread of being similarly afflicted. For an entire year this fear seldom left her, and at the end of this time (January, 1895) she noticed that her lower extremities were growing weak and were the seat of a constant heavy feeling. In addition to this she experienced a persistent dragging pain in the lumbar region and in her hips. She soon found, moreover, that she grew easily over-tired even on slight exertion, and that she was prone to stumble and fall on the slightest provocation in the way of an unevenness in the floor. These falls have been accompanied by attacks of uncontrollable laughing and crying, during which she will not allow any one to come to her assistance. After the emotional outburst subsides she rolls over on to her knees and gets up

unassisted, somewhat after the fashion of a patient with pseudomuscular hypertrophy.

Five months after the onset of her trouble, increasing weakness and the embarrassment of her locomotion compelled her to abandon her work, and she has been able to do nothing since. To the tendency to stumble and fall was soon added a marked ataxia of the lower extremities, and for a long time now she has employed a cane to assist her in getting about. Within a year a slight but distinctly noticeable slowing of speech has manifested itself.

Altogether her symptoms may be recapitulated as follows: (a) Marked emotional instability with attacks of causeless laughing and crying; (b) weak, dragging feelings in lower extremities, with constant dull pain in lumbar region and hips; (c) marked ataxia of lower extremities, with increasing tendency to stumble and fall; (d) noticeable slowing of speech.

There have been no headaches, no failure of vision, no diplopia. The integrity of the sphincters has been preserved, and nothing approaching lightning or girdle pains has ever been present. The patient is strongly impressed with the idea that she has caught her trouble — as she expresses it — from her former employer's wife.

Physical examination. — Patient medium height; fairly well developed and nourished; color fair.

Gait. — This is spastic-ataxic to a very marked degree. The patient clutches at surrounding objects for support as she walks, and on attempting to turn she falls to the floor, if not supported. Nevertheless, it is difficult to say whether the spastic or the ataxic element predominates.

Station. — Static ataxia is so great as to preclude the possibility of her standing alone with both eyes shut.

Pupils. — The right is somewhat larger than the left, but both are perfectly regular and react promptly to light and in accommodation.

Ocular muscles. — Normal, except for very slight tendency to nystagmus on looking upward and outward.

Visual field. — Normal.

Facial muscles, tongue, soft palate. — Normal. Speech is somewhat slow, but cannot properly be called scanning.

Upper extremities. — Strength fair and equal; slight tendency to tremor on purposive movement, especially on left, and the deep reflexes are plus on this side.

Heart and lungs. — Normal.

Kidneys. — Normal.

Lower extremities. — Strength very much impaired; this more marked on the left than on the right side. In spite of the very evident ataxia which is here present, myotatic irritability is much increased, the knee-jerks being greatly exaggerated, with ankle-clonus on the left but not on the right side. The superficial reflexes show no alteration, and there is no tendency to contractures.

Sensation. — There is a slight hypoalgesia over irregular areas on the thighs, but there is no true analgesia or anesthesia.

In the opinion of the writer we have presented in the above combination of symptoms about as typical a manifestation of that pseudosystemic form of spinal sclerosis which we designate clinically as ataxic paraplegia as it is possible to have. That the mental atti-

¹ Read before the Clinical Section of the Suffolk District Medical Society, May 17, 1899.

⁴ Morse, J. L.: *Journal of American Medical Association*, November, 1898.

⁵ Griffith: *American Journal of the Medical Sciences*, vol. cix, 1895.

⁶ Max Einhorn in *Twentieth Century Practice*, vol. viii.

tude of the patient is that of a hysteric cannot be denied, and this factor in connection with the irregular areas of disturbed sensibility on the thighs calls, to a limited extent, for differentiation. The circumstances under which the trouble originated are certainly suggestive, and the lapse of time between the acquirement of the fear of disease and the establishment of the preliminary symptoms might justly be called, after Charcot, the period of meditation. When we consider, however, the obscurity under which is veiled our knowledge of the etiology of the form of sclerosis which we assume to be present in the case in point, the only etiological factors which we have at command may be considered as potent for the production of a sclerosis as for a psychosis. Furthermore, it must be borne in mind how frequent is the association between the various etiologically obscure spinal scleroses and hysteric manifestations. This is especially true of the "*scéléroses en plaques*," and has repeatedly given rise to errors in diagnosis.

With regard to the disturbance of sensibility which is present in this case, the writer admits that it is not ordinarily found in the so-called ataxic paraplegia, owing to the fact that it is the postero-internal columnus of the cord rather than the root zones which are found degenerated. In view, however, of the essentially irregular distribution of the sclerosis—in other words, its pseudosystemic character—it is safer to conclude, in the case before us, that a few of the fibres in the postero-external column are affected, rather than to attribute a psychical origin to the hypoaesthesia found. Leaving both these factors out of the question, there is still a third which, in my opinion, puts the case without a doubt upon an organic basis, namely, the presence of the ankle clonus.

This is the diagnostic factor upon whose value in the matter of differentiation between hysteria and organic disease I wish to lead the discussion. It is an old moot point and one of great medico-legal importance. My own feeling in the matter is that genuine ankle clonus invariably indicates organic disease. By genuine ankle clonus I wish, however, to be understood to mean a clonus that can be elicited at all times and one that does not cease during the individual trial after from two to three to fifteen or twenty movements. Speaking from personal experience with regard to hysteria, I am much more accustomed to find a normal muscle tonus than an exaggerated one, and I am always more surprised to find lively reflexes—to say nothing of ankle clonus—than I am to find normal ones. In looking over the notes of 50 consecutive cases, both hospital and private, I find the reflexes thus recorded: Lively, but equal and without ankle clonus, seven; considerably diminished, two; normal 41. In other words, a normal condition in 82 per cent. of the total number. I have under my care at the present time an absolutely typical case of hysterical hemiplegia with marked tendency to contracture at the knee-joint, and yet the patellar reflexes are diminished. I remember, also, very distinctly, two other cases, both of hysterical paraplegia, one of which had been bedridden for five years, in which the deep and superficial reflexes were as near normal as can possibly be imagined.

It is curious how silent the French writers are on the subject of tendon reflexes in hysteria. I have looked carefully through the works of the best-known authorities of this school, and find no special mention

made of this very important subject. Among the Germans, v. Bechterew,² Oppenheim³ and Sternberg⁴ claim to have seen ankle clonus in connection with hysteria, and the last-named author goes so far as to say that it is present in 20 per cent. of such cases. Unfortunately for such claims, evidence is lacking that the clonus observed was genuine in the sense already set forth. Gowers,⁵ who approaches the subject in his customary succinct and satisfactory fashion, says that a true foot clonus is all but conclusive evidence of organic disease, but that it may be obtainable during hysterical contracture. With this view, Mills, speaking from much clinical observation, is in accord, and in the discussion of a paper⁶ recently presented by him before the New York Neurological Society in reference to the subject, the general sentiment coincided with that of Dr. Mills.

Before inviting the opinion of my listeners to the point in question, I wish to state clearly again the stand which I personally am inclined to take in the matter. This is as follows: (1) That no clonus ought to be considered genuine which cannot be obtained to the same degree—under the proper circumstances—at all times throughout the course of the disease; (2) that such genuine clonus is never obtained except in organic disease.

In conclusion I must revert to the title under which the case which forms the basis of this paper is reported, and say that a consideration of the circumstances underlying the evolution of the case seems to me to abundantly justify its selection.

FURTHER OBSERVATIONS ON THE TREATMENT OF THE ABDOMINAL VISCERA THROUGH THE COLON.¹

BY FENTON B. TURCK, CHICAGO, ILL.

IN a previous communication it was shown that small quantities of hot water (55° C.) introduced into the rectum produced a marked effect on the heart and general circulation and especially on the abdominal organs. From these results it was evident that hot water introduced at the temperature mentioned into the colon had a greatly beneficial effect upon the abdominal viscera. Air, hot or cold, forced through a double tube into the colon and allowed to escape also acts not only as a powerful stimulant to the abdominal viscera but also acts as a species of pneumatic gymnastics of the colon. In the introduction of hot water into the colon the following technique is adopted: The patient is placed in a dorsal position upon a table specially devised for the purpose, which is so adjusted that the hips may be raised or lowered to any desired angle without discomfort. The solution employed is usually a nine-per-cent. normal salt solution when the therapeutic effect of heat and cold are desired. For other purposes mild antiseptic and medicated solutions may be employed. A soft-rubber tube, either single or

¹ Abstract of paper read at the Mississippi Valley Medical Association, Chicago, October 3, 1899.

² V. Bechterew, W.: *Neurol. Centralbl.*, 1895, p. 1157.

³ Oppenheim, H.: *Archiv f. Psychiatrie*, vol. xix, pp. 524, 525.

⁴ Sternberg, M.: *Die Sehnenreflexe und ihre Bedeutung für die Pathologie des Nervensystems*, p. 254.

⁵ Gowers, W. R.: *Manual of Diseases of the Nervous System*. Second edition, 1893, vol. I, p. 451.

⁶ Mills, Chas. K.: *Some Points of Special Interest in the Study of the Deep Reflexes of the Lower Extremities*. *Journal of Nervous and Mental Disease*, March, 1899, pp. 131-160.