

well reports the autopsy of a girl aged thirteen in whom chorea developed after rheumatic fever, at which was found softening of the right middle cerebral lobe and to a less extent of the left, without demonstrable embolism. On the auricular surface of the mitral valve there were numerous fine warty vegetations; in the kidneys three arterial twigs, plugged with emboli. Dr. Gray reports a case of acute chorea with embolic thrombosis of basilar artery, both vertebrals, and both middle cerebrals, with softening of anterior and middle cerebral lobes, and dorsal part of the cord. Dr. Fox, in a case of acute chorea, reports microscopic embolism of corpus striatum and small vegetations on mitral valve. Ziemssen also cites a number of German authorities in favor of the cerebral nature of chorea. Of especial significance are the frequency with which choreic symptoms are unilateral, sometimes in association with anæsthesia of the skin, and the transition from hemichorea to hemiplegia, and the converse process of the development of hemichorea from unilateral palsy, as related by Charcot, Foote, Weir Mitchell, Hughlings Jackson and others. In hysteria, on the contrary, changes in the central nervous system have failed to be discovered. The cases of M. Charcot, in which after long continued hysterical contractions, sclerosis of the lateral columns of the spinal cord was found, are viewed by Jolly as accidental complications, rather than as causative elements. One of the most interesting features in the case lectured on by M. Charcot in his clinic, portions of which lecture I now propose translating, was the circumstance of the immediate arrest of the rhythmical movements of the trunk and limbs by firm pressure over the right ovarian region. In obscure cases of this kind may we not look to local affections of nerves as causative influences? Lobstein thought he had ascertained the existence of inflammation of the great sympathetic, and to this source he refers many obscure diseases, such as violent hysterical affections; and Abercromby in his classical work on diseases of the brain, remarks, "We must forbear to speculate where we have not facts before us, but it appears extremely probable that there are diseases of internal nerves which may be the source of important morbid phenomena." I am fully aware, Mr. President, that it is a very difficult problem to distinguish between the phenomena of purely reflex action and those resulting from incipient structural lesion;

and it is only to careful clinical observation that we can look for a discovery of the original seat of the irritation. In Charcot's case the right ovary was evidently the source of the choreic movements, certainly at least, a subsidiary factor, and the progress towards recovery at the time of the delivery of the lecture, had been expedited by alternate inhalations of ether and nitrite of amyl. In *Le Lyon Médical* for November, 1870, there is to be found another interesting case of reflex spinal irritation. The patient had been long treated for severe paroxysmal cough without success, the paroxysms ceasing only on lying down. An examination revealed an inverted and enlarged uterus. This organ was replaced, and kept *in situ* by a pessary, when the cough ceased at once. On removal of the pessary the cough returned, and continued until the pessary was re-applied. When we remember the intimate connection between the ganglionic and cerebro-spinal system of nerves; the third encephalic, with the ophthalmic ganglion; the fifth, with the sphenopalatine and otic; and the sixth, as also the eighth and ninth on their exit from the cranium, with the superior cervical ganglion; the fifth, sixth and seventh cervical nerves and first dorsal, with the inferior cervical ganglion; the thoracic portion of the sympathetic forming the greater and lesser splanchnic, the semi-lunar ganglion forming plexuses with the abdominal viscera, and in the ganglion *impar*, resulting in pelvic plexuses, nervous centres, to, and from which, nerves proceed; that in nearly every part, two kinds of fibres exist, the gelatinous and the tubular, the tubular derived from the cerebro-spinal centre, the gelatinous from the ganglion, need we be surprised in the face of such inter-penetration, and intimate co-relation, at the influence of the will, and of the passions of the mind, on the various involuntary functions; or that in chorea, hysteria and diseases where disordered nervous actions occur, reflex irritation may be viewed as a frequent factor of the trouble. The mind concentrated upon organs suffering from certain feelings of tension, and uneasiness, caused possibly by some changes of circulation, the strange anomalous symptoms result; the exact *quo modo*, I apprehend, we are no more likely to determine than the way in which the nerves act on the capillaries of the cheek, in the paleness of fear, or the blush of shame. Dr. Marshall Hall, in his work on the pathology of the