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NEURASTHENIA.

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This is so extensive a subject that it would be impossible to discuss in the limited time at our disposal, more than few points in regard to it. Our increasing knowledge of the subject will ere long lead to a division of this multiform disease which only a few years ago was unmentioned in our text books, but the importance of which, leads to the necessity of further classification, so that some distinguishing name would indicate the special form of neurasthenia under consideration. The analogy; between the term neurasthenia, and that of Bright's disease, is striking and just as in the latter we have conditions which originally indicated kidney disease in general, so we have in neurasthenia, a term indicating an affection of the nervous system, but as Bright's disease was later classified into various kidney troubles as known to-day, so will time and further knowledge more clearly designate divisions in what we now term neurasthenia, a change which is urgently demanded from a clinical standpoint. As already stated, the limited time to-day will only allow of the discussion of the some of the phases of neurasthenia, and of these I would like to draw your attention to two of the most important. (1) The so-called "spinal irritation" and (2) the mental results of certain forms of this affection. In regard to spinal irritation, it was long supposed to be due to a lesion of the spinal cord or meninges, and this led the earlier authors, (notably among whom we find Rosenthal), seeking to explain its pathology in this manner, to classify it with diseases of the spinal cord. That this is an error, is, I think, now generally conceded; Bouveret among other having expressed himself very positively on this point. A consideration of the facts shows the correctness of this negative view. But it was to a more definite solution of the problem of the seat of spinal irritation that I hoped to direct your attention to-day, and this is, that instead of the trouble being due to changes in the spinal cord or local structures, I believe that it in reality is *psychical*. This belief has been forced on me, in the first place by the nature of the pain complained of. The hyperesthesia is fully as intense as is met with in hysteria, which is avowedly an affection of the higher centres. Cases of this nature frequently occur, in which the slightest touch on the vertebral column or on either side of it calls forth expressions of the most intense pain. I recall one in which I directed the nurse to begin tapping the spine gently with two rubber balls mounted like hammers, and in a few days the patient could bear quite a severe pounding with these balls without any complaint, in

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fact she seemed to enjoy it, a condition which would not have been reached had there been any local affection sufficient to induce the degree of pain of which she originally complained. Simply because such pain is situated over the spinal cord, I do not think we are any more justified in assuming it to be due to a lesion of the cord than we would be to assume that the anaesthesia of a limb or one half the body, as is frequently met with in hysteria, is due to a lesion of the underlying structure. Why in neurasthenia, the spine should suffer in this way so frequently is more difficult to understand, but if we consider that the spinal column with its muscles and its supply of ligaments is so constantly in action during the waking state, the fact that it should suffer early when nervous weakness arises is easily comprehensible, the degree in which it suffers being influenced by hereditary predisposition or otherwise. Whilst the action of the muscles of the back is largely automatic, the impulses from the higher centres are called upon more frequently as the nervous action which is sufficient in a normal state becomes weakened by disease and this increased demand on the higher centres gradually induces in them a condition of irritation which is expressed peripherally by the deranged sensations in the structures of the dorsal region. The localization of the pain in certain spots, as in the "plague sacrée" of Charcôt, or as in the tenderness to pressure of certain spinous processes, may be due to a slight strain of the ligaments or muscles, which has taken place without the attention of the patient being especially attracted to it, and which would never have developed but for the existence of the nervous weakness. A case in point is one of a young lady who, after having led an active out of door life with plenty of exercise, became neurasthenic and one day in lifting a book felt a sudden pain in the muscles of the forearm. This subsided in a little time and only recurred on making a sudden effort with the arm which was otherwise quite well. The strain was in this case due, not to any local trouble in the forearm, but to a lesion of the higher centre of the brain, and disappeared entirely as the central nervous system regained its normal tone, as is frequently seen in cases of traumatic myalgia. In an analogous manner a lesion of the spinal structures may develop producing an irritated centre in the brain which gradually increasing, shows itself in the symptoms known as spinal irritation. The importance of the suggestion that the real cause of the trouble is psychical rather than physical, is very great in consideration of the treatment.

We now come to the second phase which was mentioned above, namely the question of the relation between neurasthenia and incipient mental disease. Authors generally, consider that neurasthenia terminates, only as an exception, in mental disease. I believe, on the contrary, that certain forms of neurasthenia (especially those affecting the intellect or the emotions) *frequently* do so. This belief is based on clinical experience, and is supported by the researches of Hodge. The latter, as you are all aware, demonstrated with the microscope, the changes which take place in nerve cells after physical fatigue and electrical stimulation, and showed that after an excessive degree of fatigue, the cells recovered their normal condition only with difficulty, or not at all. This whole subject has been ably discussed by Tuke, who maintains that the changed conditions of

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the cells of the cortex, probably combined with the toxin introduced in the blood through deranged metabolism of these cells, must naturally lead to a disturbance of function of the higher centres of the brain, which unless corrected, must necessarily lead to definite mental disease. He says that "In the course of almost every case of idiopathic insanity, *i. e.*, insanity due to over-exertion of the brain, we have a fairly well marked prodromal period indicating the diseased balance between nutrition and function in the kinæsthetic area. On the rapid removal or non-removal of the causes of implication of the cells of the Rolandic area, depends the issue of the case—recovery or prefrontal atrophy." This prodromal stage with its results is precisely to what I desire to direct attention, as I believe that this stage corresponds in many cases, to what we term neurasthenia, and that proper treatment at this period would avoid the disastrous results which would otherwise follow. A consideration of insanity shows that in nearly all cases prodromal symptoms must in some stage of its development have been present. As cases of insanity are described by the alienist under whose care the case comes, only when fully developed, the transition stage between mental health and insanity has been but little discussed, and in consequence a fertile field has been left uncultivated. These cases of neurasthenia are given an additional interest by the fact that they comprise cases on the border-land, where one or more of the faculties may be affected, the remainder remaining normal. Hence in an early stage, when the approach of the coming storm is heralded only by such symptoms as restlessness, intense and unreasonable anxiety, loss of or deranged memory, inability to do any prolonged mental work, disturbed emotions, worry over trifles, irritability, etc., with loss of sleep, the treatment of these cases would show most satisfactory results, whilst in no class of cases are the consequences of delay more serious.

Of the beneficial effects of treatment, none are more marked than in the removal of the patient from the surroundings in which the neurasthenia has developed. An important point in regard to separation is that if used at all, it must be complete; a single visit from a near relative or an intimate friend or even a letter from such, may seriously affect the progress of the patient toward recovery. In regard to the rest cure as described by Dr. Weir Mitchell, I have found it most useful in selected cases, and the underlying principles of it form undoubtedly the most valuable contribution which the treatment of neurasthenia has ever received. Rest is the keynote to the proper treatment of nervous weakness, and it is the proper application of this principle which makes or mars the success of our efforts. Rest in bed is only one form of rest, and may be contraindicated. Travel, with the resulting change of scene and surroundings is another form of rest, but great care is required in the selection of suitable cases. Many a patient is advised to travel when the change only irritates and excites an already weary brain, or an easily exhausted body, and leads to unsatisfactory results, because treatment of a different kind was necessary before travel could be undertaken with pleasure or safety. The same error is often made in regard to exercise, the fact that physical movement necessarily involves an expenditure of mental energy, being often overlooked. Hence while exercise may be freely insisted upon in some cases, in others it must be very carefully regulated in its amount. Time forbids further

discussion of the medical treatment or of the use of massage and electricity in this affection, but I would like to mention the decidedly good results of hydrotherapy when used in conjunction with these measures. In conclusion, neurasthenic patients often state that they have been given this advice "Now just believe you are all right and there will be nothing the matter with you." There are undoubtedly neurasthenic patients who exaggerate their ills, but I am convinced that these are much fewer than is generally supposed, and that when we can learn the patient's character in the past, further study of these subjective symptoms will often prove their reality. Although we cannot percuss or palpate to demonstrate the exactness of the descriptions given by these patients, we can impartially estimate the truth of their assertions, and after careful consideration of the symptoms, save them by proper medical treatment from what, in some cases at least, would have resulted in irreparable disaster.

[Since writing the above I have observed a passage in R v Krafft-Ebing's work on "*Arbeiten aus dem Gesamtgebiet der Psychiatrie und Neuropathologie*" referring to neurasthenia in its relation to mental disease. The following is a translation of the passage referred to. He says "it is astonishing that so little notice has hitherto been given in medical literature to the interesting, and on account of their frequency practically important, transitory Psychoses of the Neurasthenic".]



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