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Neuratrophia, Neurasthenia and Neuriatria.*

FIRST PAPER.

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WHEN Beard, but a few years ago, first broached the subject of nervous exhaustion as a distinctive and definitive condition of the nervous system without accompanying or precedent localized organic lesion or hæmic disease, he was regarded by many as a visionary theorist, if not as a crank, and when Van Deusen, that Kalamazoo physician, who preceded Beard in the presentation of this subject, offered his first contribution to the profession through the pages of a standard medical periodical (*The American Journal of Insanity*, 1887), he was scarcely given a hearing by the leaders and molders of medical opinion, and Dunglison had carried the unused and unnoticed term in his standard American Medical Dictionary for some years before these live observers vitalized it and rescued it from the fate of so many good terms now epitaphed as obsolete.

Now the term "Neurasthenia," and its explanatory phrase, nervous exhaustion, though not half a century old is in every mouth, medical and non-medical, a substitute for more accurate diagnosis and a satisfactory explanation for conditions whose prime cause is often elsewhere than in the nervous system. So that while neurasthenia is a real condition, it is in danger of becoming a fad with physicians and a convenient substitute for accurate diagnoses.

This term has been used to designate the debility of anæmia and chlorosis, the exhaustion of marasmus,

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toxhæmia and the post-febrile *sequelæ*, as well as the debility of enteric phthisis, and the neural perversions of hysteria and neuro-venereal nervous debility. In this broadened sense it is an exceedingly vague term. Applied so indefinitely and without discriminating significance, it means nothing but general weakness; whereas, to the neurologist, it has a far more definite and significant meaning.

The neurasthenia of neurology is a condition of the nervous system *sui generis*. It is not necessarily a sequence of organic disorder or of chemical or microbic toxicity or of poison or starvation of the blood from any cause. It is not a blood disease. It is a neural debility dependent upon an inherent factor and inadequate central nerve-cell power of appropriation and instability of expression. The instability is due to central debility, and the debility is due to neuratrophia consequent upon overtax and the hereditary factor, by which assimilation and elaboration of force is not equal to expenditure. The equilibrium between central nerve repair and waste or disintegration incidental to action or organic function is disturbed and the balance is against the functional integrity of the central nervous system. This may take place when the blood is rich in reconstructive elements, so that while depravity of blood may bring out the unstable displays and develop the undertone of nervous exhaustion in the predisposed, it usually takes place from pure prolonged or intense overtax of cerebral and cerebro-spinal centers from great and continuous mental or physical strain or shock, and the physical conditions, the atony of organs, the apepsia or dyspepsia nervosa, the hepatic and intestinal torpor, the cardiac debility and irregularity, and all the train of psychical symptoms—morbid irresolution and timidity, the dreads, the fears, the sensory perversions, the anæsthesias and hyperæsthesias, the analgesias and hyperalgesias, the flushings and vertigoes, the claustrophobias, mysophobias, phobophobias, morbiphobias, heterophobias, etc., etc., as well as the more defined intellectual and

emotional perversions of its later stages, delusive and imperative conceptions, perceptions and feelings and sometimes morbid impulses, are the outcome of the cerebraesthesia profoundly affecting the cortex, and associately, the region of the medullæ and pons. If we follow the nerve channels of conduction of motor influence down from the psychomotor areas of the cortex through the corpus striatum to their outward peripheral, and the sensory fibers through the thalamus opticus to their inward central expression, and if we search in the *iter a tertio ad quartum ventriculum*, and in the walls of the fourth ventricle among the cranial nerve nuclei there, we should find, figurately speaking, in these centers of afferent and efferent nerve cerebral impression, as well as in the trophic centers of the brain and cord and in the cerebellar, cerebral and spinal connections of the pons, an explanation of conditions that do not necessitate precedent functional or organic disease in certain organs to account for neurasthenia. On the contrary, the neurasthenia and its underlying central neuratrophia accounts in numberless instances for the complications in the viscera. But the general practitioner has been, hitherto, so accustomed to locate disease in organs and, fastening upon a certain organ, now the liver, now the kidney, now the stomach (and always the ovary, if his patient be a woman, and her physician one of that narrow kind of gynecologists now happily passing away, generally the kidneys, if a man and his physician a nephrectomist), and treating it to the exclusion of the nervous system, that it has become the popular custom (and popular custom follows professional, a little way off) to charge the troubles of the neurasthenic to the organ or organs that most prominently reveal disordered feeling, as the hypochondriac does.

The body social and political is just now asking what shall be done with the moral cranks of society, but what are we to do with those hypochondriacal cranks in our profession, whose fatal fad it is to load all the ailments of the physical body, including those within the realms

of psychiatry, on some one organ, and that one, the particular organ or group of organs which they especially treat, and, finally finding themselves unsuccessful in their therapy, as must necessarily be with all such narrow-gauge and limited visual range practitioners, become skeptics in regard to the value of medicine in the treatment of disease in general, and by advising their patients to do without medicines simply because they, by narrow or mistaken diagnosis, have been unsuccessful, they harm the public (by such advice), because by wrong counsel they rob the patient of available resources in the hands of the more skillful. What, for instance, must happen to such of the public as, finding themselves suffering from vasomotor failure and a certain sequent turgescence of the nasal mucous membrane, are prompted to seek the narrow nose specialist who sees only follicular rhinitis in such cases and not the lowered, underlying and causative nerve-tone. The unfortunate patient gets his nose douched regularly every spring and fall, until finally the rhinologist, becoming tired of treating the same patient so long, or of having his other patients see the same patient every season in his office, tells him there is no cure, or the only cure is in the sea-shore, change of climate or travel, when a proper treatment of the patient, including his nose or even excluding it, would have effected a cure in a season; or *vice versa*, suppose a patient having a neuralgia or nerve pain from tumor, an abscess or pressure or other morbid surgical cause in its center or course is treated by an equally narrow neurologist for a disease of the nervous system? Adneural disease is often thus misinterpreted even by the neurologist who should know better. The nose, the nerves, the heart, the ovaries, the kidneys, the bladder, the bowels, the lungs, the liver and the stomach are often treated in this way, because they are found to be the seats of pain, irritation and disordered function. I have known a patient to escape the loss of a kidney at the hands of the surgeon who proposed nephrectomy for obstinate renal neuralgia, and number-

less instances are on record and many within my own observation of simple neuropathic women who have escaped oöphorectomy to have their irritable ovaries finally entirely relieved by judicious constitutional treatment addressed to the hyperæsthetic and weakened sensory and vasomotor system and by a general constitutional repair. Others have not been so fortunate, some having had both ovaries removed, yet the neural disturbance continued, and some have passed neurasthenia and oöphorectomy into the painful sequel of insanity.

Nearly all dyspepsias are due to brain-strain and impaired or defective vagus innervation. In short it is primarily a brain trouble in the vast majority of dyspeptics, as Amariah Brigham, a distinguished American physician, as long ago as 1832, first pointed out. The most of the symptoms of cholera, the draining off of the blood serum in rice-water discharges, the cramps, the collapse, are all disorders of the nervous system, and the now prevailing *grippe* is a toxic neurosis; and is not that indefatigable worker in dermatology, Ohmann-Dusmenil, our colleague, every now and then finding a new nervous disease of the skin, until neural dermatology or dermatological neurology has almost become a special department of medical work. And what would Love, of acknowledged success with children, amount to if he ignored their delicate nervous systems in the treatment of their many maladies which are so largely nervous?

Though it has been but a short time since I introduced into the nomenclature of medicine the terms *neuratrophia* and *neuriatria*, their meaning and importance in general practice even are becoming quite well understood. The new Century Dictionary has adopted them, and the profession, even in general medicine, has given them practical significance by recognizing the importance of recognizing the neural factor in the management of diseases in general, whether disease primarily, secondarily or concomitantly involves the nervous system. The general practitioner must be a neurologist to achieve the

highest success in practice, and the best success of a neurologist depends upon his knowledge of general medicine and the wide range of his general clinical experience, and *vice versa*, always. A specialist may limit himself to one line of work, but not to one line of research, for his *patient* is ill as well as the *part* of perverted physiological system he treats, and whatever part he treats he should remember that,

All are but parts of one great whole,
Whose life the blood is and the nerves the soul.

The physician who does not study and treat his patient all over, or who is not competent to advise his patient how and where to remedy all his maladies, is apt to be a no bigger man in his practice than the little fellow in naso-pharyngology who knows only how to douche the nose and throat, or of those other little fellows, the narrow otologists and ophthalmologists, the range of whose practical skill extends but little further than a few collyria and the plucking out of ingrown hairs or of touching the region of the tympanum and inflating the Eustachean tube. The true specialist of nose or eye or ear, studies and treats from a broader stand-point. In short, he is a physician, as should be the neurologist.

Gentlemen, we have reached a period in the evolution of medicine where there is no place for the little neurasthenic doctor with dudish ways, either in the specialties or in general practice. We have reached a period when a man should know his whole profession, no matter in what department or division of labor he works. We have reached a point where we are more dependent upon each other than ever before for mutual advice and counsel.

Sir Oracle of the past in our ranks, is dead. A confraternity of collaborators has taken his place. We are all neurologists. We are all general physicians, at least in the study of the phenomena and relationships of dis-

ease, though the field must be worked over by special workmen. We call them specialists because of the limited range of their respective labors, it being impossible for one man to practice over the whole field. In this sense and under this view, I propose to tell you how I treat essential nervous exhaustion or neurasthenia, and, while not ignoring other of nature's aids, I do not despise the assistance or undervalue the potency of medicines in promoting recovery from this peculiarly American disease of the counting-house, the pulpit, the rostrum and the exchange.

General neuratropia or its functional expression neurasthenia is a disease of the overworked brain and overtasked allied nervous system. It is the disease which first overtakes the man of extensive business affairs and cares who egotistically regards his brain and connected nervous system as a perpetual motion machine not governed by the ordinary laws of supply and demand of nerve force, of waste and repair of energy; of the man who stimulates and goads when he ought to sleep, who prods the tired animal to desperate efforts when, under overtaxed nature's demand for rest, it lags in effort; of the man who not only expends the principal of his stored up nerve energy by drawing out all the reserve and exhausts the interest, and being unprepared for the unexpected bankruptcy finds himself involved in business affairs he no longer has the strength to satisfactorily conduct. The successful lawyer, the great jurist, the popular actor, the talented preacher, the successful politician, the skilled and publicly appreciated physician, the brilliant writer (sometimes he is an editor), the artist, the architect, the zealous tradesman, ambitious politician,—all and every one in every rank of life who runs for life's prizes without heeding the physiological warning on the wall, treat themselves in the same suicidal way as if there were for them no physiological reckoning, no pathological hereafter.

It is fortunate for many of these that, by reason of

inherent tendency to neuropathic instability, acquired ancestral overstrain transmitted, they let down in neuratrophia, giving out in neural functioning power, rather than in the graver forms of nerve failure, like the paralyses, apoplexias, the pareses and scleroses.

These ambition-crazed cranks (I use the term in its milder sense) have turned at the wheel of progress, personal or public, until their own machinery goes wrong, unmindful of the law in physiology as in physics, that rest, as well as action, is essential to repair, and that, as in the machinery of man's own contrivance, its movements must be stopped at times in order to keep it properly reconstructed and serviceable.

Though books have been written on the subject, the causes of neuratrophia and its consequent neurasthenia, under the designation of neurasthenia only, need not be more definitely enumerated. They are overwork, wear and worry of the brain and the symptoms, especially the dyspepsia in men and the utero-ovarian and spinal irritation in women, which have been so often treated as its causes or its consequences. I have seen patients unsexed and their backs burnt with white heat whose sole trouble was nervous exhaustion and associated spinal or ovarian irritation, and equally inappropriate treatment and vicious diagnosis, as for organic disease, has been often applied to the irritable hearts of these very unfortunate patients; and as for the hysterics, what contumely, suspicion and lack of sympathy have they suffered at our hands for conditions of irritability they could no more control unaided than could the epileptic restrain his spasm.

It is apparent to every careful observer that neuratrophia or neurasthenia is both a primary and secondary condition and that its accession under conditions of over brain-strain, adverse stress of the emotions, as in great grief or overmastering sorrow or as a sequēce to the devitalizing organic or circulatory diseases, must be carefully differentiated in order to accomplish its successful treatment, and

in my judgment and experience, it is always amenable to cure, if the physician can get at all the determining factors and have entire control of the patient's environment and treatment. I think I have never failed under these circumstances and that, too, largely with very great assistance from suitable medication, including the use of electricity, massage and passive exercise. I do not believe in the employment of hypnotism in these, as this always involves a cultivated perversion of the individual's normal will which, in my judgment, should seldom be systematically employed in any disease, and when it is deemed proper to employ it, it should be done after due deliberation and for the very best reasons only.

Hypnotism is somnavolism, and somnavolism is the absence or abeyance of the individual's normal will and subjection to the will of another through sleep psychically induced and not naturally induced. But sleep is the paramount remedy for neurasthenia, as it is for natural fatigue—prolonged, quiet, dreamless, tranquil, recuperating sleep, that restores the exhausted ganglion cells of the overtaxed cerebral cortex, as it “knits up the raveled sleeve of care”—and all the agencies, chemical, psychical, physical, moral, which may bring about the right kind of sleep in the right time, when nature inclines the human organism to rest, are indicated and desirable. The conditions of repair, as well as action, reside in organism, and nature's mechanism must rest in its defective parts, while that master mechanic the *vis medicatrix naturæ*, attends to its reparation.

Nature's workmen must have the materials for reconstruction at hand, and these are not all air and sunshine, but the things that the air and sunshine act upon to promote reconstruction and normal metabolism. The hematic reconstructives and those agencies which counteract the poisons of the blood which infect the neurasthenic as they do other patients and cause neurasthenia, are called for. Iron, quinine, strychnia and the iodides are often so obviously indicated that I need hardly mention

them to secure approbation of their use. The neurologist differs from the general practitioner in the employment of these agencies (at least, I do), by often employing them by means of electro-cataphoresis, because he has more time in his office to do so, as he does, or at least, as I do, in the more frequent employment of electricity. The emunctories need attention as in other diseases.

These patients need also, during their course of treatment, the tissue-building phosphites and the arsenicals and galvanism to promote cell appropriation and re-establish normal cell activity and tranquility in the affected centers of the cerebro-spinal axis.

There is danger of over-dosing these patients with the bromides because they quiet them, and of forming drug habits, especially morphiomania, because the latter makes the patient feel better at once. This is the practice of the tyro, the quack and the druggist.

The bromide of potassium should never be given to these patients. When bromide is used it should be either the ammonium, sodium or lithium salt. The proper bromides should be used sparingly, hæmatic reconstructives and nutrients freely enough for rebuilding, hypnotics only at night-time; and the idiosyncrasies and peculiar disease-tendencies, as to rheumatism, gout, neuralgia, local congestions, hepatic torpidity, constipation, etc., should be duly regarded and remedied. Thus to successfully conduct the neuroiatry of neurasthenia, the neurologist should be a competent general practitioner and something more. He should have the special skill and facilities of a neurological practitioner for the graver cases. The general practitioner, if he is alert as he ought to be, can manage the minor case and the major too, perhaps, if he is willing to take the necessary time and patience to accomplish the task.

So, in conclusion, we have come to see, as the knowledge of the specialties diffuses in the profession, that the dictum of Cullen was not so far out of the way,

“that all disease is in a manner nervous;” and so I say the nervous system is more or less involved in all diseases, and in treating disease of the nervous system we should look for and remedy morbid implication throughout the body. In this sense, we are all neurologists: we are all general practitioners, though we may labor in special and limited fields.
