THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LII.

THURSDAY, JULY 12, 1855.

No. 23.

OBSERVATIONS ON DELIRIUM TREMENS.

[Communicated for the Boston Medical and Surgical Journal.]

ABOUT the first case that fell to our own responsible care, happened to be one of this disease; and at the time of commencing this article, nearly ten years subsequent, we have just dismissed a similar one. Circumstances having thrown numerous patients of this class in our way, our attention has been strongly directed to the subject, and therefore it is thought fitting to perform a duty which every physician owes his profession; for progress never results from undivulged experience.

The first case and the last case resulted in a similar manner, with this exception, that the first had several subsequent attacks, to one of which he ultimately succumbed; but the latter, we have little doubt, will have no repetition of the paroxysm. Experience has convinced us that, in the vast majority of instances, this may be considered not a hazardous prognosis.

The diagnosis of delirium tremens, to the practised eye, is a matter of little difficulty, although explanation of the reasons which lead to it in cases involving suspicion of other forms of delirium or insanity, is troublesome enough. Typhoid fever, asthenic meningitis, traumatic derangement, and some other disorders occurring in individuals obnoxious to the causes of true *mania a potu*, present obstacles to description that we are confident preclude satisfactory elucidation to the novice. Nevertheless, actual observation of a few cases in practice will enable the decision to be made fearlessly and with security. The same thing is true with reference to many other forms of disease—written or oral instruction fails to communicate knowledge necessary to successful diagnosis and therapeutics. The seeing eye, acute perception, *tactus eruditus*, and retentive memory of sensations, are indispensable. This is the probable meaning of the old authors who wrote—"there is nothing of certainty in medicine except our sensations." The current pathology has classed delirium tremens with simply *functional* disorders. This is the view taken by Armstrong, Gregory, Watson, Williams, Jas. Bird, Prof. Wood, Carter, and other prominent au-

thors ; the various morbid appearances after death being considered merely as complications.

Now, were this view theoretical only, little need be said of it ; but unfortunately the influence of treatment is marked, and indeed overpowering—leading one to wish here, as well as elsewhere, that the term “functional disease” could be stricken from medical nomenclature. Thus a vast battery of appliances has been alternately recommended and discarded. Opium and other narcotics, in doses large and small, tartarized antimony and other emetics, mercurials, venesection, digitalis, ammonia, camphor, alcohol, and the padded cell, with solitude and time—are among the more generally sustained agencies.

Without delaying upon theoretical considerations, let it be recollected that the nervous system—brain, spinal cord and their prolongations, with the ganglionic chain, are substantive matters as certainly as the muscles and bones ; and moreover that they require for the due performance of their functions, an adequate supply of properly-elaborated blood. The myriad of cells whose development, maturation and death are, at least, coincident with the vital action of that portion of the organism, may not present in their aggregation the gross phenomena of inflammation, and yet be radically diseased. Variations in quantity and quality of nutriment alike impair and destroy.

To the blood, then, and to the organs which elaborate it, or to the food received, are we forced to look for the fountain of evil. The impairment of the blood may depend upon a temporary cause, or upon profound organic lesion. That temporary cause, and that lesion, are the objects of treatment, and not solely the production of sleep. The delirium here is but a symptom of disease, and so is the vigilance, and so is the muscular trembling.

Three cases I have examined carefully *post-mortem*. In these cases there were found thickening of the gastric mucous membrane, with the dark livid appearance well represented in Dr. Sewall's fourth plate. In one of the stomachs were found large masses of putrid meat, swallowed three days previous to the attack, or five prior to the death. In all there were patches where the minute rugose surface seemed to have entirely disappeared, there being no trace of the tubular arrangement or villi. Near the cardiac orifice, the plexiform arrangement of the membrane in one instance was remarkably exaggerated, apparently from general hypertrophy. With a common pocket lens, the orifice of the tubules seemed large enough to introduce the head of a pin, or like the follicles of Lieberkühn in the rectum. The intestinal canal elsewhere presented no lesions, or anything noteworthy except its emptiness. In two of the cases there was cirrhosis of the liver, and in one fatty degeneration. The kidneys in each were large, flabby and pale. The lungs of two were healthy—the other had tubercles at the apices, a multitude of granular concretions, and several distinct cicatrices. This latter appearance was noticed par-

The Boston Medical and Surgical Journal as published by

The New England Journal of Medicine. Downloaded from nejm.org at LATROBE UNIVERSITY on June 10, 2016.

For personal use only. No other uses without permission. From the NEJM Archive. Copyright © 2010 Massachusetts Medical Society.

ticularly at the time, but my notes are not so full as I now wish. Dr. Bennett describes them accurately, in a similar case, in his essay upon Pulmonary Tuberculosis, chap. 1, sect. iii. The ventricles presented considerable serous exudation, but the membranes and mass of the encephalon were exsanguine. At the base there was a degree of venous congestion attributable unquestionably to moribund syncope.

These general anatomical features I find to correspond with those usually observed. Several others have been noticed—patches of meningeal, pulmonic, bronchial, hepatic and renal inflammation, Bright's disease, &c. &c. But no single set of morbid changes has occurred, with such constancy, as to incline authors to attribute the disease itself to them as "proximate cause." Opinions differ, or at least expressions.

Much discussion has arisen upon the point whether the delirium is caused by the withdrawal of an accustomed stimulus. This is ordinarily assumed to be the case, but the veriest tyro must have seen victims of this disease with the poisonous fumes of alcohol reeking in their breath. On the other hand, habituation to the use of any compound, that is not substituted by another of similar properties, is well known to require continuance, under peril of more or less serious derangement. This is undoubtedly a diseased condition, but, like the eye of a prisoner in a dark dungeon, it requires cautious change.

The blood disorder which results in delirium tremens is to be treated where it commences. That which ensues from a single debauch needs but little of correctives; the effete matters are readily eliminated by the comparatively healthy excretories. But the chronic cases, with frequent paroxysms, must be met by more attention and effort. The sensation of hunger appears to be due mainly to the sustenance of animal heat. Alcoholic drinks control this sensation to a great extent. The primary stimulating impression upon the stomach, it is true, augments the desire for food, but the secondary effect is to lessen it. The stimulant may produce immediate local disorder, which prevents digestion. Thus in each of these ways alcohol starves all the organs not involved in the respiratory function. Or, again, it may produce persistent organic disease of the stomach, liver, or other glandular organs. The mode in which the stimulant is taken determines very accurately the resulting effect. Taken in an exceedingly dilute form, as in ale, beer and light wines, or commingled with the elements of food, it may be said never to produce delirium tremens. The observations on tuberculosis in the second number of this volume, upon this point, might be re-produced here, *totidem verbis*.

The practical inference is simply this, that even though we may not dissuade our unfortunate patient from his cups, we may so regulate even his excesses that he will be little liable to this, his great horror. Tell him to cultivate the acquaintance of the cook *before* that of the bar-tender. Dilute (and here, infinitesimally,

all the better) the stimulant, so that lesion and disorder will not occur. If the appetite fails, then is the time to see the physician, who must anticipate the paroxysm as he would an ague. The rules of treatment are simply those of dyspepsia, or of acute or chronic disease of the digestive organs.

Mercurial and other alteratives, counter-irritants, and even venesection, may be required. Mark, that the great point is to restore digestion and appetite—and, in nine cases out of ten, eliminating agents are the thing. Calomel, blue mass and aloes among the cathartics, and acetat. potassæ among the diuretics, are, perhaps, the best. Then follow with simple tonics, like cold infusion of cort. prun. Virgin. or quassia and camomile—or, perhaps, the old mixture of augustura and sem. juniperi, mineral tonics, iodide of iron, bismuth, &c., of course may be useful at times. Above all, don't think, when the patient is about again after a paroxysm, that he is well, any more than he would be in the intermission of ague.

The treatment of the paroxysm, of course, must vary according to both commemorative and present symptoms. Sleep is indicated, but as a sign of remission, not as an evidence of cure. A sufficient degree of elimination and nutrition must be secured. Depuration may take place without assistance, and so may nutrition of the nervous apparatus, as every physiologist can explain. It is all important to discriminate when and how much to interfere.

The threatened paroxysm may often be avoided by the use of simple ant-irritants and laxatives. Thus the nervous excitement will frequently succumb to a simple pill like this. *R.* Ext. hyosey. (opt.), gm. assafæt., āā gr. ij. ; sapon. venet., gr. j. *M.* Repeated every hour or two p. r. n., and then fifteen grains of blue mass at bed-time, followed by the senna draught in the morning. Or the quieting agent may be of a more stimulating character, as liq. anod. Hoffm., morph. acet. and mist. camph. ; or, again, a mixture of laudanum, comp. spts. æther, tinct. assafæt. and c. spts. lavender ; or tinct. camph. ; or of chloric ether in comp. tinct. of cardamoms. But none of these things should be relied upon, except for sustaining the system till depuration takes place. When the grave paroxysm has already come on, it may often be relieved speedily by a full dose of calomel and Dover's powder—say gr. xij. of the latter to gr. xv. of the former. This is all the stomach will ordinarily bear. Larger doses of opium are rarely well borne, and other preparations of this drug scarcely have so pleasant an influence. Emetics, in the writer's experience, are too apt to get up an irritable stomach, a complication more to be dreaded than any other. The profound sedative influence of tart. antim. and similar agents, if it can be secured without emesis, however, favors much the absorption of alterative medicines and the functional action of the excretives. When this latter fails, as is manifested by the dry tongue and skin, by the cessation of healthy discharge from ulcers, if present, or the dry and angry appearance of accidental abrasions, the prognosis is exceedingly grave. Secretion

must be re-established, or the patient will die. Neither alcohol nor opium will do it, homœopathy will fail, and assimilative "expectancy" likewise. Support is imperative, and calomel a duty. Concentrated beef tea inside, and an epispastic outside the stomach, are good remedies. The constant inclination to vomit will not infrequently be relieved by minute doses of prussic acid in syrup. morph. acet., or syr. creosote and morphine. Neither here nor elsewhere, has the writer any confidence in the effervescing draught for this purpose.

Some cases will occur in which nothing will control the difficulty but raw spirit in large doses. And this is the only instance where this is good practice. Forcing sleep by it, is simply analogous to "breaking up" pneumonia with a red pepper or brandy sweat. You *may* do it, but if not, *cave!* Opium—ditto; chloroform—ditto; *ali*—ditto. It is a trite medical truth, that many diseases are critically resolved in sleep, and this is the case here very frequently. *But the paroxysm will return more speedily and be more difficult of control, unless sleep has been solicited, not compelled.*

The homely Scotch Æsculapius remarked, "There are twa things, Sir Astley, to be aver kept in min'; to keep faith in Gode, for hereafter, and to keep the boeels open, which'll do for here." But after all, something more is necessary. The delirium may be prolonged from actual inanition. Starvation is to be guarded against, as well as proper medication provided for. Practitioners complain of difficulty in inducing patients to take nutriment, but the writer is inclined to believe this less difficult than ordinarily supposed. The patient can be readily persuaded by a good nurse, or physician of moderate shrewdness. Fall in with the current of his ideas and have tact enough to direct them. Take medicine with him, drink with him, eat with him, and pretend to sleep with him. This may fail for some time, but by proper tactics will before long succeed. The writer has scarcely ever failed in this management. Oyster soup, rich animal jellies and broths, and essence of beef, are preferable. Or egg-nogg, or wine sangaree. *Feed the patient with something nutritious, and keep up secretion*—the whole in a nutshell. And when he sleeps, don't let him sleep finally. The pulse is to be watched, and the strength supported by nutriment, dilute spirits, wines, &c. Prevent any recurring paroxysm by the regimen and treatment heretofore spoken of.

The unexpected length to which this paper has already stretched, prevents further detail at present.

MICHIGAN.