and in the woman with spinal disease, of 10 per minute. *Temperature.*—In four cases, it was observed in the rectum. In three of these, there was no change; in one, there was a decrease of 0.8 deg. In the case of spinal disease observed (in the axilla), there was also a decrease of 0.8 deg. *Respiration.*—By an unfortunate omission, the respirations were not counted, except in two cases; in one of these, no change was noted; in the other, there was an increase of four per minute. As to the state of the skin in regard to perspiration, no difference was observed in any of the cases.

In the case where the poultice was continued only for an hour—one of bronchitis—the pulse fell eight, the temperature of the rectum was 0.2 deg. less, and the number of respirations was the same. In the other person, also a sufferer from bronchitis, but of greater severity, the pulse was ten fewer, falling from 128 to 118; the respirations were four more; the temperature of the rectum was 0.4 deg. less. No change was observed in the state of the skin in either patient.

The general results obtained, though not very decided, were in most cases favourable, more so than with the mustard alone. This observation is supported by the decrease both of the pulse and temperature in some of the patients. The boy aged 13 was, however, a marked exception, as his pulse was 22 higher at the close. Struck by this fact, it occurred to me that it would be desirable to contrast it with the effects of a similar application on a thoroughly healthy child. Accordingly, I selected for observation a lively, good tempered boy, aged 10, apparently in excellent health. The following were the conditions: 2.40 P.M., an hour after dinner; temperature of apartment, 64 deg.; in bed, under two pairs of blankets and cotton coverlet; pulse 80, of average strength. The skin in all parts was warm and soft, but not perspiring; temperature of rectum (six minutes), 99.6 deg.; the respirations 23 per minute. A poultice was then prepared, consisting of one tablespoonful of mustard and three of linseed meal thoroughly mixed, spread on cotton cloth to about three-fourths of an inch in thickness, and applied at a temperature of 124 deg. to the front of the chest, muslin intervening between it and the skin. I had intended continuing it, if it could be borne, for two hours, and purposed recording the effects every half hour during that time; but, after thirty-three minutes, he complained so much of pain, that I was under the necessity of removing it. His pulse then was 106, and there was no appreciable change in the state of the skin generally, nor in the temperature, as observed in the rectum. He complained much of pain, and was so restless that the respirations could not be counted till a quarter of an hour after the removal of the poultice, when they were 23 or 24 per minute. Ten minutes after it had been taken off, he felt the surface still hot and sore; but the pulse had fallen to 96. In ten minutes more, the pulse was 80; he was calm, and said that he was almost free from pain.

We see, then, that in a healthy child, the mustard-and-linseed poultice very decidedly excites the heart's action, and also produces considerable pain and mental irritation. From what we know of the still greater susceptibility of the very young, we may consider it nearly certain that these effects would be even more marked in a healthy infant. An excited action of the heart, pain, and mental irritation, can scarcely be regarded otherwise than evils; so that, in applying poultices either partially or entirely composed of mustard to young patients, we have to consider whether the advantage we expect to obtain will more than counterbalance the directly injurious effects of the agent itself; and also if the desired result might not be procured in some other way, either without these accompanying disadvantages, or in a subdued and milder form, if they cannot be avoided altogether.

[To be continued.]

ON THE TREATMENT OF NOCTURNAL ENURESIS AND SPERMATIC INCONTINENCE.

By D. CAMPBELL BLACK, M.D., L.R.C.S. Edin., Glasgow.

I AM induced, in consequence of the perusal of a paper by Dr. Bradbury of Cambridge on the above subjects (see BRITISH MEDICAL JOURNAL, April 8th, 1871), to make the following brief observations.

While I am perfectly willing in all cases to accept recent additions to our pharmacopœia, and accord to them their due credit, I am painfully sensitive to the inordinate enthusiasm which all such additions evoke; and I am persuaded that, in consequence, old and valuable medicinal agents are too frequently consigned to unmerited desertion. It is a pleasant thing, in the practice of physic, to be able to lay hold of ultimate facts, and my experience in the treatment of the affections under consideration affords one or two, of whose reality I am thoroughly convinced. I make a claim, therefore, for old agents of the pharmacopœia.

The analogy between nocturnal enuresis, spermatic incontinence,

and all other involuntary actions of muscular fibre, and epilepsy, which Dr. Bradbury points out, is to me not novel. A due equilibrium of nervous influence is at all times essential to normal function; and, when undue elevation or depression on either the psychical or the somatic side occurs, normal function, so to speak, becomes unhinged, and functional or organic changes ensue. The machinery—to carry out the analogy—whereby nervous influence is regulated, consists of the sensory or afferent, and the motor or efferent nerves. The sensory nerves, under the influence of stimuli, transmit, probably by molecular action, impressions to the central organ—the brain—through which they are communicated to the motor. In this manner, abnormal peripheral irritation may occasion functional disease; and, thus guided, the cause of the irritation must be ascertained in every given case, and treated as its peculiar exigencies demand. On the other hand, the very converse of this may happen, through the influence of the mind. This being the psychical disturber of nervous balance, its cause must in like manner be determined, and the appropriate remedies enjoined.

That the various secretions of the body, and many of the organic or involuntary muscular movements, are powerfully influenced by mental emotions, is an universally acknowledged fact. Thus strong mental emotions may arrest the secretion of milk; the salivary glands, in cases of urgent thirst, are stimulated to increased secretion by the mere idea of water; the action of the heart is accelerated by anger or other violent passion, or depressed, as in syncope, by fear, etc. This law—that of emotional stimulation, as it may be termed—finds expression in the old aphorism, *Ubi stimulus, ibi humorum ulterior adfluxus*.

The close relationship of functional aberration of the genito-urinary system with the brain, and consequently their mutual interdependence, is further illustrated in the distribution of the sympathetic nerve. It is peculiarly through this nerve that the conditions enumerated influence secretion. This very important nerve, or rather nervous system—that of common feeling (*cœnæsthesis*, *κοινὸς αἰσθησις*)—is to a great extent independent of the brain and spinal marrow. It has been separated, for purposes of description, into three distinct foci: (a) the focus of generation, (b) the phrenic focus, and (c) the solar plexus. The thoracic portion of the sympathetic is situated on the side of the vertebral column as far as the last two dorsal vertebrae. During its course, its ganglia are twelve in number; and its branches are divided into branches of communication and branches of distribution. At the termination of the pneumogastric is situated the solar plexus. From this centre, accompanying the branches of the aorta as “governors”—to carry our analogy still further—of secretion, the sympathetic distributes branches. In addition, therefore, to the diaphragmatic, gastric, hepatic, splenic, suprarenal, renal, mesenteric, and aortic, we have spermatic plexuses. Besides these branches, the pelvic organs derive branches from the lumbar and sacral portions of the parent trunk; hence there are described the hæmorrhoidal, vesical, prostatic, vaginal, and ovarian plexuses. Our position, therefore, is this—that functional diseases of glands, organic muscular fibre, etc., may be either of psychical or somatic origin, *i. e.*, due either to peripheral or to central irritation; and that, accordingly, their rational treatment resolves itself into psychical and somatic appliances. I am thus a firm believer in the ancient creed which associates hysteria with some disturbance of ovarian, vaginal, or uterine cœnæsthesis; the abundant secretion of urine which accompanies this disorder clearly demonstrates the influence of the sympathetic over this secretion; while, in respect of treatment, the efficacy of some powerful mental emotion of a counteracting nature is very manifest. Thus the cold-douche treatment, which is so successful, finds explanation, doubtless, in a feeling of indignation having overcome a different mental impression; and so on. A familiar illustration of the same influence occurs in the curing of hiccough by the creation in the mind of the patient of some powerful emotion, by being charged with the commission of some derogatory act, etc.

With respect to enuresis, the disturbing influence I believe to be generally of a somatic nature; while, in the case of its prototype, spermatic incontinence, it may be either psychical or somatic, either of them, or both. Enuresis generally occurs at the periods of infancy and declining years; and, according as it may so occur, its cause admits of different explanations. In childhood, it is almost invariably traceable to the irritation of worms, congenital phimosis, calculi, or perverted secondary assimilation causing urinary density and acidity. These causes being removed, the sphincter muscle recovers its tone, and a cure is effected. But, if the hyperæsthesia have been long continued, a debility of muscular fibre ensues, and a tonic treatment is indicated in addition. In advanced life, the conditions mentioned are generally absent; and the cause of the enuresis is found in enlarged prostate, a general enfeeblement of muscular structure, and affections of the spinal cord, or calculi. Such being the pathology of this affection, I have invariably treated it with narcotics and tonics, or rather a particular

tonic; and I claim for camphor, opium, belladonna or hyoscyamus, with the tincture of the muriate of iron, properties, I am satisfied, inferior in their influence over the bladder to no preparations in the pharmacopœia. But it is indispensable, according to my experience, that the tincture of steel be given much in excess of the usual dose. Of this, however, more in the sequel.

With respect to spermatic incontinence—an infirmity which has been made so much stock of by quacks both in and out of the profession—my experience of the use of the agents mentioned has been equally satisfactory. Into the consideration of the psychological origin of this infirmity, I do not at present enter. It may vary in intensity from a slight impression to erotomania; and it is an admitted fact that enfeebled health may be traceable alone to an intense occupation of the brain by lascivious ideas. On the other hand—the somatic side—local irritation (how caused, I do not stop to consider) is, in my experience, seldom or never absent. When consulted regarding such cases—a numerous class in city practice, and requiring the tenderest consideration on the part of the practitioner—my invariable custom is to pass a catheter or bougie, and, in nine cases out of ten, a peculiarly tender condition of the prostate is discovered. It is, therefore, through the prostatic branches of the sympathetic that this disturbing influence acts. The indications of treatment are consequently obvious—viz., to allay the irritation; and, if its long continuance have induced muscular debility, to restore the lost tone. In the accomplishment of these objects, we must be guided by the severity of each case.

The prostatic irritation may in most cases be removed by the occasional passing of a catheter, perhaps once a week, or, in more urgent cases, by the application of caustic to the prostatic portion of the urethra, by one or other of the numerous instruments devised for this purpose. Nitrate of silver may be applied in a solid or fluid state; and so persuaded am I of the soundness of the views on which this practice is based, that I protest against the published opinions of recent writers on this subject, and assert that the practice, if judiciously performed, is attended with no risk whatever. I may remark that I prefer the application of the caustic in its fluid form. But, in a very large proportion of cases, this supposed extreme measure is not required: to accomplish the object in view, we possess the old medicinal agents above mentioned.

I shall select for illustration the two following cases, out of very many, to indicate the good results thus obtained.

On the 10th of March last, I was consulted by a medical student, aged 17, who was much annoyed by the very frequent occurrence of seminal emissions, to the extent of two nightly at times. I simply prescribed the following: *R. Pulv. camphoræ gr. xvij; pulv. opii gr. xij; ext. hyoscyami q. s. ut fiat massa, et divide in pilulas xij.* One pill was ordered to be taken at bedtime; and forty minims of tincture of steel to be taken thrice daily in a wineglassful of water. Ten days afterwards, the patient called upon me, delighted to find the source of much annoyance removed.

I was consulted by a patient at a very considerable distance, regarding the same affection. In a communication dated December 10th, 1867, after a truly amusing description of his symptoms, but one displaying almost “a mind diseased,” the patient stated: “I have emissions almost every night, and sometimes twice a night. It is about two years since I suffered from them.” I ordered my usual prescription. On the 28th March following, he writes: “I have had only one emission during the last thirty-three days.” I advised that the dose of the tincture of sesquichloride of iron should be gradually increased to ninety drops. My patient was evidently so satisfied with its efficacy, that he exceeded my allowance. “I am at 120 drops now, thrice daily”; and he adds, “I am quite cheerful at present.”

Dr. Bradbury remarks: “Wherever, therefore, there is reason to believe that nocturnal urinary and seminal incontinence are due to spasm (not the result of irritation reflected from a fissured anus, worms, urinary calculi, congenital phimosis, or of structural disease of the walls of the bladder, etc.), hydrate of chloral will be found a most serviceable drug in their treatment, in consequence of the acknowledged efficacy of this drug of allaying spasm, as observed in tetanus and other spasmodic disorders.” My belief is that no abnormal spasm ever takes place without some primary irritation. Is there no irritation in tetanus? Is hysteria not traceable to uterine, ovarian, or vaginal hyperæsthesia? Does the removal of the testicles in cases of epilepsy in the insane, and the marked benefit attending the operation, not indicate the removal of a source of irritation? And wherein does Mr. Baker Brown’s operation of clitoridectomy differ from this operation? Is erotomania not insanity? It is a wise advice that of two evils we should choose the lesser. And can the “culpability” of removing the clitoris with the consent of the sane, or without the consent of the insane, be urged against the bodily risks and appalling spectacle presented by an epilep-

tic, and the moral degradation of a debased practice, or the instrumental prostitution of these latter days? What of the cases of partial paralysis from reflex irritation, caused by congenital phimosis and adherent prepuce, as recently reported by Dr. Sayre, of New York?

While it is very possible, then, that hydrate of chloral may act beneficially in cases where irritation alone is to be contended against, I am very doubtful of its efficacy where muscular debility has been superinduced by chronic hyperæsthesia.

In a word, my experience of the use of the above drugs, is that they will cure urinary or spermatic incontinence (confining this term to the exceptional cases in which this condition absolutely exists as a pathological state) in the great majority of cases, always providing that the tincture of steel be given in the large doses mentioned, and sufficiently diluted. And contrary to what might be anticipated when the system becomes thoroughly saturated with the tincture, the bowels become rather loose than costive. As a narcotic in the cases under consideration, I cannot decide between hyoscyamus and belladonna. I sometimes use the one, sometimes the other. I have pushed belladonna to the extent of causing dryness in the throat and impaired vision, and I have never known it, as Dr. Bradbury has, to cause diarrhoea. These are subjects upon which very much might be said, and on which too much of a kind has been said. In the meantime, I content myself with confidently recommending an older treatment than that by chloral, and with expressing satisfaction at the appearance of Dr. Bradbury’s paper.

ABSTRACT OF CLINICAL LECTURE ON SUPPOSED CASES OF HYSTERIA.

Delivered at St. George’s Hospital on October 30th, 1871.

BY H. W. FULLER, M.D.,

Physician to the Hospital.

GENTLEMEN,—In the absence of any new form of disease in the hospital, I propose to speak to you of two interesting cases which were admitted as cases of hysteria. The one is in the Pepys Ward, and the other in the Holland Ward. The first instance is a remarkable one. The girl’s physiognomy was that of hysteria, and she had attacks of a very violent character. In her fits there were the most terrible struggles; but throughout them she possessed consciousness, and she would try to bite any one attempting to hold her. She had no true convulsions, as in epilepsy, yet she had violent muscular jactitations, and appeared to have little control over her movements, so that she would injure herself severely by knocking her head against the wall or bedstead, unless she were prevented. She reported that she was a healthy girl till a week or ten days before her admission, when she received a blow on the head. From that time, she generally had great pain in the head. Two days after receiving the blow she had the first attack, and those who saw it regarded it as hysterical, and treated her accordingly. She was the picture of health, with clean tongue, normal pulse, etc. However, on inquiring into the case, I found that she did not sleep well, that she had a peculiar heavy look, and complained of increased pain in the head before the attacks. She was observed in her sleep to put her hand to her head. One day I saw her in an attack, one of the most violent I ever witnessed; and in it, although the muscular movements were so violent that four persons could scarcely hold her, she retained a considerable amount of consciousness. Her tongue was protruded, but was not bitten; she made frequent attempts to bite those who held her, and she did not go to sleep when the fit was over. In many respects, then, the attacks resembled attacks of hysteria; but, coming on as they did, irregularly, preceded by heaviness, restlessness, and severe pain in the head, I am inclined to regard them as denoting some mischief about the brain—a kind of hysterical epilepsy. In the first instance bromide of potassium was given, and for a month she took it in full doses of half a drachm four times daily, but no appreciable effect was produced. The fits recurred as often as ever—not unfrequently two or three times a day; the same heaviness of aspect continued, and there was the same constant complaint of headache. I therefore put her upon the biniodide of mercury, and from that time she began to improve, and for the last week has not had another attack. Whether this will continue remains to be seen; but certain it is that she has greatly improved since she began this treatment. My impression is that in this case we have to deal with real mischief—not with mere hysteria—with local cerebral congestion and irritation occasioned by the blow, the hysteria being only superadded to it; and I would warn you that you may get into great mistakes and trouble in these cases if you do not note carefully *all* the symptoms before allowing yourselves to arrive at a conclusion. I remember a man in the King’s Ward who was regarded