PROVINCIAL MEDICAL & SURGICAL JOURNAL.

TABLE OF DISEASES TREATED BETWEEN THE 24TH OF FEBRUARY, 1843, AND THE 31st OF JANUARY, 1846.

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(Continued from page 167.)

From the number of cases recorded under the head of renal disease, it is obvious that they are of frequent occurrence in this locality. The cause of this is probably to be met with in the occupations of those principally affected, rather than in any endemic or topographical peculiarity. A large proportion of the cases occurred in ship-carpenters, seamen, glass-men, and ironfounders, in all of whom the function of the skin is liable to both frequent and serious interruption. When to this fact is added the recognized connection or relation subsisting between the cutaneous transpiration and the secretion of urine, a very satisfactory explanation is afforded of the frequency of urinary diseases.

After the researches into the nature and causes of these diseases, and the admirable deductions drawn therefrom by Drs. Bright, Prout, and Golding Bird, it were almost presumptuous in me to occupy the space of the Journal, or the time of its readers, by enlarging on the pathology of these diseases; especially as from the disadvantages under which the cases were treated, minute clinical observation and chemical analysis were in a very great measure precluded. Another cause which has been supposed to operate in the causation of diseases of the urinary system, is the nature of the water with which the town is supplied, and which contains a considerable quantity of saline and earthy matter, especially lime. To this source I do not, however, ascribe much importance, as were it really an active agent, the cases in all probability would have been more frequent in occurrence, and different in character. By far the larger portion of them partook of the sub-acute or chronic inflammatory nature, being accompanied by both the symptoms and condition of urine known to denote such state of the kidneys, and which circumstance is quite consistent with the very common and obvious cause to which allusion has already been made. The habitual indulgence in the use of ardent spirits has also been assigned as a cause of these diseases, and doubtless very frequently is so; but as far as my observation in Sunderland enables me to speak, I cannot fairly impute a single case in the

table to this source. In confirmation of this I may state, that in upwards of three years but one case of delirium tremens has occurred in my practice, and in one other only was it apprehended; a fact which cannot but be regarded as highly favourable to a large, hard-working, maritime population.

So far as the urine was tested, it exhibited the usual deviations from its healthy condition. In some cases albumen was present in considerable quantity; in a majority acid preponderated; whilst in a few an alkaline redundancy prevailed, which last state was perhaps in some degree attributable to the treatment, in which alkalies formed a prominent feature. This was probably the case in the example of hæmaturia, recorded in the Journal some time ago by me, and in which the urine was at first decidedly acid, but when tested again, after alkalies had been used for some time, was as manifestly alkaline.

The treatment consisted principally in alteratives, aperients, the preparations of soda, potass, and magnesia, with hyoscyamus, counter-irritation by means of the antimonial ointment, croton oil, turpentine, and in a few of the more acute cases, topical blood-letting and blistering, the unpleasant effects of the latter being, as far as possible, obviated by the exhibition of anodynes and diluents. In a later stage of the disease, in many instances, the turpentine and copaiba in small doses were of the very highest utility. When the inflammatory action had been fully subdued, tonics, and more particularly the preparations of iron, were generally given with benefit.

In connection with renal disease, a cursory notice may be bestowed on other affections of the urinary system, and which are recorded in the table. These are diabetes, hæmaturia, and cystitis; also enuresis.

Of diabetes there are three cases mentioned in the table, one of which was fatal, and in which I had the opportunity of a *post-mortem* examination; one still continues to linger on, having endured, for above three years, within my actual knowledge; and one yielded to medicine, the patient, a young woman, having remained free from complaint for more than a year. In all of them the urine was mellitic. On this obstinate and very frequently fatal disease, it is now my intention to offer a few remarks, founded entirely on my own experience, and wholly irrespective of authority; wherefore, if erroneous, the onus will rest on myself.

Without entering into any nosological discussion, it may be permitted me to state, that from the observation

vation of many cases of diabetes, it has long been my conviction that the disease is not essentially or primarily referrible to the urinary organs, but, on the contrary, dependent on some peculiar morbid condition of the organs by which digestion is carried on. The following circumstances seem corroborative of this opinion:—The almost universal presence of dyspepsia, which, when the history of a case is thoroughly sifted, will be found to have existed for some time before the increased flow of urine attracted attention; the effects of remedies, medicinal and dietetic; and above all, the appearances met with on dissection of those who have died of the disease. The first proposition acquires strength from the well-known influence of defective or depraved action of the assimilating organs over other secretions; wherefore it is no stretch of analogy to infer a similar effect on that of the urine. The second derives support from the utter inutility of those remedies, which are admitted to act most beneficially in diseases of the kidneys and bladder, in cases of diabetes. The last from the fact, that the anatomical changes in the urinary organs, found after death in those who have died of diabetes, are in no degree commensurate with the functional disorder, if such were confined to the kidneys, which in three cases examined by me have displayed *no change of structure*; whilst the stomach and assistant viscera were unequivocally and organically diseased. That such should be the case might be safely inferred, even during life, from a variety of circumstances which must now be noticed, being present, to a greater or less extent, in almost every case of diabetes which I have seen. Amongst the most prominent symptoms of the disease are, morbidly increased appetite for food; incessant and insatiable thirst; dry, parched, and harsh skin; the tongue red, dry, streaked with mucus, but more commonly presenting a general raw appearance, as if deprived of its ordinary membranous covering, the papillæ being partially, if not entirely, obliterated. To these may be added the dry, lank, and woolly state of the hair, and also an almost indescribable appearance of the sclerotic coat of the eye. Difficult as it is to describe intelligibly these appearances, I can safely affirm, that in several cases the two last have led me to a conjecture as to their origin, which, on enquiry into the secretion and condition of the urine, was fully confirmed. The alvine discharges are, except when aperients are given, scanty and very irregular, taking place at the lapse of two, three, or four days, and sometimes at much longer intervals of time, and invariably exhibiting a marked deficiency of bile; when, however, an active purge, as a full dose of the castor oil, is given, the quantity of the discharge is frequently enormous. To such accumulation of *feculent matter* is to be ascribed the irregular unyielding hardness of the abdomen, which may or may not be accompanied by distension. All the symptoms now enumerated tend to show that whatever part the kidneys may play in this very formidable disease, the digestive system at large is more than secondarily implicated, if not the absolute *origo mali*. To this opinion I incline, not only from the symptoms above mentioned, but still more from the effects of medicines over the disease,

having invariably found that the greatest benefit accrued from those which were more immediately calculated to obviate such disorder of the digestive system. To this it will be necessary to revert in connection with the treatment.

The appearances met with after death were, as already said, confirmatory of this view of its pathology, being almost entirely, so far as any actual change of structure is concerned, strictly confined to the stomach and its assistant viscera, whilst the only changes met with in the kidneys were the following, which cannot be properly regarded as constituting organic lesion:—In one of the cases both kidneys were *paler in colour, flatter*, and more *flaccid* than in the natural state; their substance was less *firm*, but not to such an extent as to render the term *softened* justifiable; both the pelves and the infundibula were enlarged, many of the latter obliterated; no *trace of inflammation* was present. The stomach was of its normal size, but its coats, even before it was cut into, were most evidently *attenuated*; when it was opened the villi were in every part wanting; the whole surface presenting the appearance of an highly inflamed and congested membrane, being smooth, except in one or two small patches where ulceration had occurred, the vascularity generally arborescent, but in many places assuming the aspect of extravasation beneath the membrane. The whole mucous coat was soft and pulpy, being readily removed by the finger nail, when even lightly used. The muscular coat was hardly discernible, whilst the peritoneal or serous presented no unusual change. In this case the pancreas was larger than natural, flabby, and easily torn; in another case this gland was harder than in health. The liver was paler than in health, and somewhat softened, but not to such an extent as to lead to the belief that such change was the effect of disease, but perhaps more properly attributable to the gradual wasting, and exsanguined state of the system consequent thereon. The gall-bladder contained a small quantity of dark-coloured viscid bile. The mucous lining throughout the intestinal canal was more or less vascular, and in many points ulcerated; this last appearance probably had no direct part in the disease which forms the subject under consideration, but rather occurred as it does in phthisis and other diseases which terminate in hectic. The foregoing statements all refer to the case of a female, with the exception of the remark, that “in another case the pancreas was *hardened*.” She had suffered long from the disease, and died apparently from some sudden and serious lesion of the brain, which unfortunately was not examined, owing to the close approach of the interment, which was fixed for the same day. In one of the other cases only was there any thing unusual met with in the kidneys beyond what has already been noticed: this was simple *venous congestion*.

The treatment from which I have derived the most decided benefit, has been that addressed to the digestive system, and consisting in the employment of alteratives, sudorifics, chalk, iron, and occasional aperients. In most cases calomel is to be preferred to any other mercurial, and may be advantageously combined, either with tartrate of antimony, or Dover's

powder; where there appears to be much gastric irritability, of which the tongue affords a tolerably certain indication, even independent of those sensations which more unequivocally denote such state, the Dover's powder has the best effect, and if the tartrate of antimony be used, it should be given in combination with either opium, or the hydrochlorate of morphia, either of these combinations affording at the same time the best chance of acting on the skin. In this disease, however, diaphoretic medicines seem to have but little power, and should, therefore, where it can be procured, be assisted by the warm bath, which may, provided there be not great debility present, be employed on alternate days. Whilst the red state of the tongue continues, I have given the chalk in full doses with very decided benefit, generally alone, but sometimes in conjunction with the Dover's powder. So soon as the irritability of the stomach has been somewhat diminished, the sulphate of iron, with or without quinine, has been used, and great improvement has been the result; another very useful formula is the citrate of iron with quinine in solution, or in a simple bitter, as the quassia. For common drink, where, as is generally the case, the thirst is urgent, one part of lime water with two or three of milk, both allays this distressing symptom, and also acts beneficially on the lining membrane of the stomach. As to the diet of diabetic patients, it is unnecessary to dilate upon it; it should be chiefly composed of animal food, as beef and mutton, in the form of chop, or steak, with as little bread or vegetable as possible, and where the state of the stomach does not forbid it, wine or malt liquor may be allowed. By some the latter is objected to, but so far as my experience extends, they have never done any harm, and I think have proved useful. In all of the cases which I have seen within the last few years, the iodide of potassium was tried, but from its having been combined with one or other of the preparations of iron, I do not feel justified in offering any opinion on its actual value, as equally decided good has followed the use of iron alone. From all that I have seen, I do not conceive that bread, when taken in small quantity, produces the bad effects attributed to it by many; at the same time the most manifest injury arises both from it and vegetables when taken in the ordinary manner. The foregoing very meagre outline of one of the most fatal, obstinate, and even yet obscure diseases, that the practitioner can be called upon to treat, must for the present suffice, and should it lead to the further investigation of so interesting and important a subject, I shall not regret having trespassed so far on the columns of the Journal.

Sunderland, April 24, 1846.

(To be continued.)

CASE OF SPINA BIFIDA.

TO THE EDITOR OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

SIR,

I forward to you for publication, if you deem it worthy, the report of an interesting and obscure case of spina bifida.

Yours very truly,

JOHN BARCLAY, M.D.

The child, Elizabeth Ginns, was brought to me some time ago, when about a fortnight old, lying on its face, with a large tumour like a bladder, nearly filled with water, on the back part of its head and neck. I pronounced a hasty opinion, and gave the parents no hopes of its surviving. On the 23rd of March I was asked by Mr. Derington to examine it again along with him, to see whether the parents' anxiety to have something done might not be yielded to with propriety. The child, now eight weeks old, presented a most singular appearance, particularly in the erect posture; a large vascular bag, filled with fluid, and nearly the size of the child's head, hung from the occiput, and by its weight, though it partly rested on the shoulders, the cervical vertebrae were considerably displaced, and the head drawn backwards. The pedicle by which this bag was attached, was extremely short and flat, about an inch in width and a line in thickness; to the feel, like a fold of skin, and only in the centre appearing to have any connection with the cranium, over which it was moveable, except at this point. No perforation nor imperfection in the bone could be detected; and when very considerable pressure was exerted on the bag, no effect was produced on the child. We, therefore, determined on evacuating the sac, and six ounces of clear yellow serum were drawn off, but no further light was thrown on the nature of the case, while the child seemed relieved by the removal of the load. It now had exactly the appearance of a wrinkled empty scrotum hung on to the occiput.

In three days it was found to have filled again considerably, and we then determined to try to rid the child of this unsightly deformity; and the parents being warned of the risk run, on the 30th of March Mr. Derington passed a double ligature of strong silk twice through the flat pedicle, and tied the loops on either side, and the remaining one in the centre, with very considerable force, though not sufficient to strangle it completely; about three ounces of fluid similar to the former were evacuated. On the next day the ligatures were tightened; and on the fourth day, the pedicle being partly ulcerated through, fresh ones were applied, so as to strangle the sac completely. Two days afterwards, (April 5th,) it had sloughed, and was so offensive that Mr. Derington removed it close to the ligatures, and it appeared lined internally with a glistening membrane. The child looked well and healthy on the 6th, and as the administration of "Godfrey" had been discovered, and strictly prohibited, it put on a thriving appearance, much to the satisfaction of the parents. On the 7th, a poultice was ordered, to bring away the ligatures; but the next afternoon, April 8th, the child was seized with convulsions, and died the same evening with all the symptoms of effusion within the cranium.

Two days afterwards we obtained leave with the