Clinical Remarks

ON

DIARRHŒA AND VOMITING, THE RESULT OF RENAL DISEASE.

BY

GEORGE JOHNSON, M.D., F.R.C.P.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF MEDICINE IN KING'S COLLEGE; &C.

GENTLEMEN,—Disease of the kidney may disturb the functions of the alimentary canal in two quite distinct ways: 1, by purely nervous sympathy; 2, by blood contamination consequent on degeneration and defective action of the kidney as an excretory gland.

We have a good example of the first class of cases when the passage of a renal calculus is attended, as it so commonly is, with nausea and vomiting. Severe pain in the kidney has always a tendency to excite vomiting. We find, too, that not only does the stomach sympathise with the painful kidney, but there is often a manifest derangement of the *intestinal canal*. During the passage of a renal calculus, there is usually more or less flatulent distension and pain in the bowels, and sometimes diarrhœa. Sir Thomas Watson relates the case of an intelligent surgeon who, while passing a calculus through the ureter, had so much pain about the umbilicus that the patient mistook his *nephralgia* for colic.

In these cases of sympathetic derangement of the alimentary canal, the secret of successful treatment consists in tracing the disease to its source in the kidney.

It is to the second class of cases that I desire particularly to direct your attention. Cases in which vomiting and purging result from the contamination of the blood by retained urinary excreta.

These symptoms are amongst the most frequent results of the various forms of degeneration of the kidney which are commonly included under the generic term, Bright's Disease. Whenever structural disease of the kidney, whether acute or chronic, is associated with an imperfect excretion of urine, and a consequent accumulation of urinary constituents in the blood, there is an attempt to throw off these impurities by the mucous membrane of the alimentary canal; and vomiting and purging are the results and the signs of this eliminative effort. Vomiting is of more common occurrence in these cases than purging. This may be because the impurities in question are more frequently excreted by the mucous membrane of the stomach than by that of the bowels. Or it may be that the functions of the stomach are more easily disturbed by the presence of abnormal secretions. Certain it is that the secretions are very abnormal in these cases. The vomited matters are usually very offensive, having a peculiar ammoniacal fœtor, and sometimes a distinctly alkaline reaction—a result probably of the rapid transformation of the excreted urea into carbonate of ammonia. The secretions of the stomach are so utterly deranged by the admixture of abnormal products, that the powers of digestion are greatly impaired; the taking of food, therefore, commonly adds to the distress of the patient; and ill-digested food passing on into the bowels often increases the diarrhœa.

The principle that I desire to impress upon you is

this—that, notwithstanding the distress which attends the excretion of urinary products by the alimentary canal, the process is in reality wholesome and conservative; the result of an effort to free the blood from impurities, the accumulation of which would be attended with danger to life.

It cannot be doubted that, in many cases of acute renal disease, the temporary excretion of urinary products by the alimentary canal is a means of warding off formidable nervous symptoms, and thus of saving life. And we act upon this principle when at the same time that we are employing every means to subdue the renal disease, and to restore the secretory action of the kidney, we give purgatives to quicken the eliminative action of the bowels.

In cases of chronic renal disease, nausea, vomiting, and diarrhœa, are common symptoms. Distressing as these symptoms often are, and difficult as it is to deal with them, their tendency is, on the whole, to prolong life. When chronic renal degeneration has reached an advanced stage, and the secretion of urine is scanty, this vicarious excretion by the alimentary canal becomes incessant; vomiting and purging are then of frequent occurrence, and their cessation is speedily followed by the most formidable symptoms of blood-poisoning.

There are few diseases that more severely test the skill and judgment of the practitioner than these distressing cases of hopelessly advanced degeneration of the kidney, with all their attendant miseries; and there are few cases in which it is more dangerous to treat symptoms without reference to their cause. In such cases, the abrupt arrest of a diarrhœa by opium may be attended with the most distressing, and even fatal, results. The effect of the opiate is usually to lessen the secretion of urine at the same time that it checks the action of the bowels. The most common result is frequent vomiting, which may continue for many hours, or even for days, and by this means more formidable symptoms may be warded off. But a not uncommon result of the simultaneous check to the action of the kidneys and of the bowels by an opiate, is the rapid super-vention of pulmonary engorgement, increasing drowsiness, convulsions, and at length fatal coma.

The unguarded administration of opium in these cases is attended with as much risk as the employment of the same drug in a case of bronchitis, when, with blueness of the lips and drowsiness, there is danger of suffocation from accumulation of a profuse mucous secretion within the bronchial tubes. We know that in such a case the arrest of the cough for a few hours by an opiate too surely results in fatal narcotism. So long as the profuse secretion of mucus continues, the patient's life depends on the expulsion of the secretion by frequent efforts of coughing. The cough is not the disease, but one of the essential means of cure. So, in the management of cases of renal disease, we have constantly to bear in mind that the primary cause of the mischief is the degeneration of one of the great blood-purifiers, and that many of the symptoms, the gastro-intestinal symptoms especially, which a superficial observer might mistake for the disease itself, are, in reality, the results of an effort to counteract the destructive effects of the primary malady.

To guard against a possible misconception, let me say, that the matters discharged by stool in these cases are not entirely an excretion from the blood. They are, in part, composed of ill-digested food, which, being unsuited for nutriment, is discharged as excrement.

In conclusion, I will give you some hints as to the management of the troublesome gastro-intestinal symptoms which so commonly occur in the advanced

stages of chronic renal disease. I have already told you that the vomited matters are usually very offensive; and, bearing this fact in mind, if you direct your patient to take copious draughts of tepid water, he will often obtain relief from his nausea by the speedy expulsion of the foul secretions and the thorough washing out of the stomach.

The relief afforded by this simple cleansing process is analogous to that which is experienced by a patient whose bladder has been washed free from foul mucus and fetid ammoniacal urine. In both cases, the cleansing has to be repeated from time to time.

The food must be of the lightest and most digestible kind. The process of digestion may be aided by a dose of fifteen or twenty drops of dilute hydrochloric acid with each meal, and to this may sometimes be added with advantage the thirtieth part of a grain of strychnia. The mineral acid neutralises the ammonia which is often thrown off abundantly, and which tends to render the secretions of the stomach alkaline or only feebly acid, and strychnia is certainly a most valuable gastric tonic. Other vegetable bitters may be substituted for this; but they are less efficacious. A glass of champagne is sometimes a grateful and wholesome stimulant with the food.

In some cases, vomiting may be best relieved by a purgative enema, or by stimulating the lower bowel by the compound colocynth pill if the stomach will retain it. In not a few of these cases, the irritability of the stomach is excessive, and vomiting occurs with far greater frequency than is required for the expulsion of its morbid contents. In such cases, the excessive irritability may sometimes be allayed by constantly sucking lumps of ice. In other cases, I have seen the occasional inhalation of a small quantity of chloroform vapour afford great relief, or a few drops of chloroform may be swallowed from time to time with mucilage. A mustard poultice on the epigastrium sometimes has a good effect. In this class of cases, such remedies for vomiting as creasote, hydrocyanic acid, etc., are, according to my experience, quite useless. When the vomiting is incessant, nutritive and stimulant enemata often afford great relief and comfort; and, indeed, they are absolutely essential to prevent fatal exhaustion when the normal functions of the stomach are so entirely suspended as they commonly are in these painful cases.

As the irritability of the stomach may be excessive, so may be, in some cases, the irritation of the bowels; and we must sometimes endeavour to allay tenesmus by the very guarded use of opium. With this view, ten or fifteen drops of laudanum may be given in an enema, or half a grain of opium with a grain of ipecacuanha in a pill, the effect being carefully watched, and the dose repeated or not according to circumstances. I have already warned you of the great danger which attends the incautious employment of opium in these cases. Bear in mind that the object of the opiate is to soothe; to allay irritation, and not close a safety valve; and, remembering this, you are not likely to err.

The gastro-intestinal symptoms will be mitigated if, by any means, we can increase the secretory action of the kidney. Amongst the means which may be usefully employed with this end in view are, counterirritation over the loins, either by dry cupping or by mustard and linseed poultices; hot-air baths to stimulate the functions of the skin, and thus to lessen the work and the congestion of the kidney; and, as a diuretic, the imperial drink, made with cream of tartar and lemon, may be taken liberally, and rendered more diuretic by the addition of a small quantity of gin.

When there is much anasarca, an incision into

each leg is often followed by great relief; the fluid is rapidly drained away; then, the vessels being partially unloaded, the circulation through the kidney, as through every other organ, becomes more free; there is, consequently, a more copious secretion of urine; and thus the gastro-intestinal symptoms which resulted from uræmic contamination are indirectly relieved. The result of my experience is that, in cases of anasarca, inflammation rarely follows puncturing the legs when the dropsy is simply renal and not complicated with obstruction of the circulation by valvular disease of the heart. The relief which follows the operation is often very great.

ON
THE MANNER OF THE INHERITANCE
OF CANCER,
AND ITS RELATION TO QUESTIONS CONCERNING
THE LOCAL OR CONSTITUTIONAL ORIGIN
OF THIS DISEASE.

By W. MORRANT BAKER, F.R.C.S.,
Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital, etc.

THE theory that cancer is, at the first, a local and not a constitutional disease, has recently been strongly upheld by an eminent writer on this subject (*The Antecedents of Cancer*, 1865, by C. H. Moore, F.R.C.S.; *A Brief Report on Cases of Cancer*, by C. H. Moore, F.R.C.S., *Brit. Med. Journal*). At the same time, he has shown how necessary for the establishment or destruction of any such theory are large statistics of cases of the disease; and it therefore seems incumbent on all to contribute, so far as they can, to the settlement of this vexed and oft-mooted question.

It is a matter of common observation, that no subject illustrates better than cancer how much may be said on both sides of an argument. There are, indeed, but few facts which have been imported into discussions on this subject that will not serve as weapons as well for one side as the other—as evidence as much of the local as of the constitutional origin of the disease.

There is, however, one point in the history of cancer which has a real bearing on the question at issue, and has more weight, perhaps, than any other; namely, the manner of the inheritance of the disease. And I propose to consider this point alone, not because it is by any means the only one that should be taken into consideration, but because it seems to me sufficient by itself to settle the particular question in dispute, so far as a settlement is at present possible.

Before bringing forward any statistics of inheritance, it may be well to direct attention to the fact that two very different notions concerning that which is inherited appear to exist in the minds of different writers on this subject. For instance, the question is argued sometimes on the apparent supposition that cancer, as such, is handed down from parent to offspring; and that, therefore, the laws by which its transmission is regulated ought to be the same with those which govern, say, the appearance of syphilis in the offspring of a syphilitic parent. Thus it has been said that, had inheritance much to do with the appearance of cancer, this disease should be more frequently congenital, or, at least, a more common malady in infants and young children than, from the examination of statistics, it appears to be (*The Antecedents of Cancer*, by C. H. Moore, 1865).