several pints of liquid fæces of healthy appearance. A small opening was discovered in the condensed structure of the lower stricture, leading apparently from the interior of the canal to a kind of abscess between the two strictures external to the bowel; but nothing had escaped into the cavity of the abdomen, neither was there the slightest appearance of peritoneal inflammation. All the other abdominal organs were healthy. The chest was not examined.

The angles at each point where the colon had doubled upon itself were so acute as to prevent the escape even of air from one portion into another; forming, as it were, so many impermeable strictures; and, although fluid could readily be injected by means of a catheter into the rectal pouch between the two strictures, none apparently passed higher through the upper stricture, nor would liquid fæces or even air pass downwards without great difficulty.

CASE XI. *Fatal Obstruction from Stricture of the Rectum.* On November 9th, 1855, I was summoned to Mrs. N., aged about 56, who had obstruction of the bowels from stricture of the rectum, with enteric pain and distension. I found a stricture about two inches and a half up the rectum, very resisting at first, but giving way to the finger on continued pressure, like a tight sphincter. I passed a stomach-pump tube through it, and it went all along the colon, so that its point or end could be felt through the abdominal parietes near the cæcum. Some flatus and liquid fæces escaped, and afforded temporary relief, and a pint of warm gruel was injected through it to dissolve still further the contents of the bowel. The pulse was 130, and small; the tongue dry. She had no vomiting, but considerable borborygmus, with occasional eructation from the stomach. She had been under the care of Mr. — about a fortnight, during which time there had been no satisfactory relief from the bowels. Leeches and purgatives had been duly employed; and we now advised a pill containing aloes and opium every four hours, and turpentine stupes to the abdomen.

November 10th. The patient had no relief from the bowels. Her general state was much the same. Pulse 130. No vomiting. The tube was passed again to-day.

November 11th. On passing the finger through the stricture this morning, some liquid fæces escaped in a jet, proving vermicular or expulsive intestinal action above the stricture. No material alteration in her general condition had taken place. She had no vomiting. Pulse 130. The countenance was perhaps a little less anxious. She had tormina every now and then, but not much abdominal tenderness. The bowels were prominent and tympanitic. We passed a rectum-bougie through the stricture, and left it in, with directions that it should not be removed for an hour or more, unless it caused pain. She had been unable to take much during the night, but had not been sick. She had low irritative fever, with remissions. She was directed to take wine and water, with small quantities of fluid nutriment.

November 12th. She was much the same. A middle sized rectum-bougie, larger than that used yesterday, was passed its whole length, and there appeared to be less resistance. A dose of morphia kept her so quiet, that the bougie remained in nearly all day; and when it was removed, she passed half a pint of liquid fecal matter. But her pulse remained 130, was more feeble, and the abdomen was tympanitic and painful.

November 13th. She had been apparently sinking all night. The feet were cold; the respiration was irregular; the pulse indistinct; the face flushed; and the body covered with a clammy perspiration. She had no pain nor sickness, but was dying of exhaustion.

She died a few hours after the last report; and we were not allowed to examine the body after death.

In this case there was, as far as we could ascertain, neither ulceration nor much thickening at the seat of stricture; but the stricture was so tightened by spasmodic action as to bring on a degree of paralysis, so to speak, of the large intestines, and all the usual effects, except vomiting, of impermeable stricture. Had this patient been in a less feeble condition of health, it is probable that the treatment by dilatation would have been so far successful as to have been the means of, at least, prolonging her life for some time.

CASE XII. *Obstruction from Cancer of the Rectum, simulating Diarrhoea.* On January 3rd, 1856, I was summoned by Mr. — to visit a case of obstinate diarrhoea of six months standing, during the whole of which time nothing but liquid had passed from the bowels. The patient was an elderly woman, unmarried, a much respected old servant, and very calm under her illness, although at times suffering a good deal of pain. She was cachectic and much emaciated; and from her history,

I suspected some formidable obstruction to the passage of fecal matter. On examination, I discovered a large carcinomatous stricture of the rectum impervious to anything but fluid. The case admitted of no treatment, and she very soon died.

I quote this case, because it exemplifies what I have several times met with in practice; namely, the occurrence of diarrhoea in connexion with serious obstruction of the bowels. Whenever a patient states that *nothing but fluid motion has passed from the bowels for many weeks or months together*, I am led, by experience, to infer that nothing but fluid can pass, and that an important cause of obstruction exists in some portion of the intestinal canal.

CASE XIII. *Fatal Obstruction from Cancer of the Rectum.* On April 21st, 1856, I was summoned by Mr. N. to Mrs. D., aged 65, who had been suffering from obstruction of the bowels for several weeks, and was now labouring under peritoneal symptoms which indicated serious mischief. On examining the rectum, we could feel at the depth of the finger two rounded tumours, like the two halves of a walnut connected along one side, enclosing the rectum between their flat surfaces; the bowel appeared to pass through a small triangular space left between those surfaces, and was so compressed or closed by the tumours, that no instrument could be passed through, nor could any motion pass away. The tumours were smooth and rounded externally, and of a very firm consistence; and I do not remember to have seen any scirrhus tumour of the rectum of the same shape. The patient died of peritonitis in a few days; and I regret that a *post mortem* examination was not allowed.

[To be continued.]

A FEW WORDS ON MERCURY: ITS USE AND ABUSE.

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THERE is a tendency at present existing throughout the medical profession to depreciate or deny the beneficial effects of mercury. While Drs. Hughes Bennett, Inman, Habershon, and others, have stood in the forefront of the battle, it is well known that they only represent the feeling of the majority of thinking practitioners in the present day. It is surely, then, worth our while to inquire whether our forefathers were so utterly wrong in their high estimate of this medicine as modern writers would have us believe; and if not, what is the cause of its discredit among the present generation of practitioners?

The affections in which mercurials have been most generally used may be classified in three divisions. 1. Syphilis. 2. Affections of the liver. 3. Inflammations.

1. It is indubitable that, since the introduction of syphilis into Europe, its history as a disease has been indissolubly linked with that of mercury as its remedy. Generation after generation of practitioners have arisen, and have handed down to posterity a corroboration of their forefathers' testimony to the value of the practice. But it has been discovered recently that primary syphilis may, if not in all, at least in the great majority of cases, get well without mercury. Does this prove that mercury is less its specific cure? It is the natural tendency of most diseases to get well after running a certain course; but this does not hinder us from seeking to accelerate, or it may be, to cut short that course by appropriate remedial agents. And that mercury does greatly hasten the termination of syphilis is best shown in the treatment of the hereditary disease as it appears in infants. In these clear and uncomplicated cases, the rapidity with which the symptoms disappear under the use of small quantities of mercury, and without any of its physiological effects, is well known to all practitioners.

2. Mercury has for long been believed to have a specific influence upon the liver, and has consequently been largely used in affections of this important organ. Dr. Inman, in his late paper on this subject (BRITISH MEDICAL JOURNAL, Oct. 20th, 1860), justly satirises the indiscriminate administration of the drug in every form of hepatic derangement; but he must allow me to say that he has by no means proved his thesis, that mercurials have no specific effect upon the liver. What, for instance, do the experiments of Dr. Scott, on which he so much relies, go to prove, but that calomel, in doses short of purgative, diminishes remarkably the secretion of bile. This, though showing the incorrectness of our choice of cases

hitherto for its employment, or, still more probably, the fallacy of the therapeutic theory on which we have based our practice, just proves that mercury *has* a specific influence on the liver, and that its primary effect upon it is markedly to diminish its secreting function. Such experiments will not stay our hands from the administration of mercurials in hepatic disease, but only lead us to review our theory and practice that we may make more discriminating use of them hereafter.

3. But when we come to the use of mercurials in inflammations generally, an entirely different series of considerations meets us. The points about the inflammatory process which seem to demand treatment are,—(a) the abnormal dilatation of the capillaries of the inflamed part going on, if not abated, to effusion of serum or liquor sanguinis: (b) the accompanying inflammatory fever, consisting mainly in increased nervous excitement, with a super-fibrinated condition of the blood: (c) the effused products acting as foreign bodies after the inflammation has spent itself. Now the properties of mercury, which are supposed to fit it as a combatant against these evils, are, (α) it diminishes the solid constituents of the blood: (β) it lessens the tendency to effusion of lymph: (γ) it promotes the absorption of lymph when once thrown down. The first-mentioned property is supposed to render it a proper remedy against the inflammatory fever, which is characterised by super-fibrination of the blood: and the two latter, to make its use indispensable in inflammations of serous membranes and in iritis, where the non-deposition of lymph, or its rapid reabsorption, are so highly important.

Now, I am by no means disposed to deny that mercury diminishes the solid constituents of the blood, and is therefore, *so far*, a remedy for the abnormal state of that fluid which obtains in inflammation. But it must be remembered that these solid constituents embrace not only the comparatively unimportant fibrine, but the all-precious red corpuscles also. Mercury diminishes these not less surely than it does the fibrine; but in inflammatory blood they are already reduced in number in proportion as the fibrine is increased. While in one particular, then, we improve the quality of inflammatory blood by the administration of mercury, in another, and a far more important one, we directly deteriorate it. According to the description of Dr. Headland, "mercury, by some inscrutable chemical (?) power, of whose agency we know nothing, is able to decompose the blood; by some destructive agency it deprives it of one-third of its fibrine, one-seventh of its albumen, one-third or more of its globules, and, at the same time, loads it with a fetid matter, the product of decomposition." He may well add, "it is an agent of terrible activity, and we may well be cautious how we handle it."

Considering these things, then, I hold it a most cruel thing to poison our inflammatory patients with mercury that we may reduce the hyper-fibrination of their blood. Even if this be more than a secondary effect of the disease, and therefore worthy of special treatment, it is quite as effectually removed by alkalies, salines, low diet, and diluents, as by the necessarily large quantities of a drug which often poisons the system for all after life.

But it may be said that the farther powers ascribed to mercury, that it prevents the deposition of lymph, and promotes its absorption when deposited, are so important that they outweigh the disadvantages arising from its poisonous influence on the blood. A little consideration will, I think, show the futility of such an objection. How does mercury prevent the tendency to deposition of the lymph? Simply by its aplastic effect upon the blood already mentioned. The only distinction between the harmless serous and the dangerous lymphous effusion is, that the latter contains fibrine and the former does not. And what so potent a determining cause in favour of the latter form as a superabundance of fibrine in the blood itself from which it is poured out? That this obtains in inflammation, and is combated by full doses of mercury, I have already shown, and therefore mercury does truly hinder the effusion of lymph: but at what a price! Here again those means, chemical and dietetic, which diminish the amount of fibrine in the blood without poisoning its vital stream, supply us with the appropriate therapeutic substitute.

The power of mercury, when administered constitutionally, to promote absorption of already effused lymph, I question *in toto*. And I support my disbelief by no less testimony than that of Dr. Watson, whose lofty estimate of the curative properties of mercury is too well known to cast upon his evidence the faintest shadow of partiality. "Mercury," he writes, in reference to iritis, "has clearly the power of arresting the deposition of lymph,—of putting an end to the adhesive inflam-

mation: whether it does anything more towards completing the cure, we have these reasons for doubting. When blood chances to be effused into the anterior chamber, or pus; or when, as frequently happens, pieces of a cataract that has been broken up pass through the pupil and shew themselves between the iris and the cornea; they (the blood, the pus, the fragments of the lens) disappear, *i. e.* are absorbed just as rapidly as the lymph in iritis, although not a particle of mercury is taken. Mr. Lawrence even gives a case of syphilitic iritis which got well without any affection of the gums by mercury, and which had been marked by the deposition of a large mass of lymph on the iris, and he says that *the lymph was immediately absorbed as soon as the inflammation ceased, and that he never saw it disappear more quickly under any circumstances*" (*Practice of Physic*, 4th ed., vol. i, p. 335).

My objection, then, to the use of mercury in inflammations is, that to produce any effect whatever of an opposite character to those morbid states which they produce, it is necessary to give the drug in such quantities as must deeply poison the vital fluid, and hence the whole frame. And this objection throws light upon the nature of that abuse of mercury which—and not its inefficiency—has caused it to stink in the nostrils of the present generation of practitioners. The beneficial influence of this drug in syphilis and hepatic affections is of that mysterious character variously denominated specific, alterative, special stimulant, etc. It does not arise from any appreciable chemical change wrought by it in the blood, but from an unknown dynamic power exerted by it on those vital tissues and functions involved in the disease; and therefore it by no means follows that it must here be given in such quantities as are necessary to produce its physiological (*i. e.* poisonous) effects. Indeed, the test that mercurials have established their influence on the organism upon which we are generally taught to rely, is one unheard of with any other medicine: I allude to salivation. The proof that a drug has done the work it is capable of, is not the production of physiological symptoms foreign to the disease, but the yielding of the morbid symptoms themselves. When we give belladonna for enuresis, or quinine for ague, we do not push them till the latter has caused deafness, or the former, blindness and delirium. In like manner with mercury: the proof of its having done all it can is not sponginess of the gums or fetor of the breath; but the disappearance of eruptions and the subsidence of pains.

Our aim, then, if we would reinstate mercury in the honourable place from whence it is falling, and preserve its precious powers for suffering humanity, should be to forbid its use in cases where its poisonous effects are necessary, and to ascertain how small are the quantities in which it can do its work where it is a specific. That these quantities are very much less than those in which it is usually administered, seems probable from many facts. While the occurrence of salivation is really a proof that too much mercury has been taken, Dr. Law of Dublin tells us that he never fails to salivate his patients with one grain of blue pill divided into twelve doses. Advancing still farther, we have the testimony of Dr. Macintosh, that in nearly thirty cases of ulcer of the penis, treated by him with black-wash, salivation occurred; and it was then calculated that the hundred-thousandth part of a grain of mercury could not have been received into the system (*Practice of Physic*, vol. ii, p. 299). Then we come to the cases of idiosyncrasy, where a still smaller quantity than this has salivated, and two grains have killed. And to those who would reject the last class of cases as inapplicable, I would suggest that a morbid condition of the system, imperatively demanding the aid of a certain medicine, really establishes an idiosyncrasy for the influence of that medicine. All these facts seem to indicate that we have not yet reached the limit of smallness of dose in the use of mercury; and that in all probability the practice of our children will be still farther removed from our own, than the latter is from the practice of our forefathers.

The conclusions I would draw from the above considerations are as follows:—

1. Mercury should never be used in cases in which its poisonous effects are required to be developed.
2. When administered in syphilis, hepatic affections, and other diseases, where its *specific* action alone is necessary, it should be given in doses too small to produce salivation or other foreign physiological effects.
3. The ascertainment of the minimum quantity of the drug necessary to produce its specific therapeutic effects in disease is a great desideratum.