NOTES

ON THE

TREATMENT OF CURABLE DISEASES.*

By W. S. OKE, M.D.,

Extra-Licentiate of the Royal College of Physicians, Physician to the Royal South Hants Infirmary, &c.

OBSTRUCTION OF THE INTESTINAL TUBE, CONTINUED.

IV.—*Incarceration.*

OBSTRUCTION of the intestinal tube may be caused by incarceration—1st, when a portion of bowel is forced out of the abdomen through one of the hernial openings; 2nd, when it is strangulated within the cavity of the abdomen by bands of fibrous lymph, by the mesentery or the appendix vermiformis cœci, &c.; 3rd, when it incarcerates itself by invagination. The two last will be alluded to in this place. The symptoms of internal incarceration are, in fact, those of strangulated hernia, except that the external physical signs are wanting. The patient, having been previously in good health, is suddenly seized with severe pain in some part of the belly, which is almost immediately followed by vomiting. From a conscious feeling that something serious has taken place within him, he is at once prostrated by alarm and anxiety. Various medicines are given in the hope of relieving the pain by acting upon the bowels; but these all return—nothing passes; the pain is unabated, and the vomiting continues and increases till it becomes stercoraceous; in short the case becomes what is commonly called *ilium* or *iliac passion*; a term which has not the slightest reference to the cause of the disease.

In the treatment of obstruction from this accident, bleeding to syncope, morphia, the warm bath, distending the colon with copious injections—each containing five grains of the extract of belladonna, and mercury to salivation—are all clearly indicated to relax the grasp that has strangulated the intestine. If these means fail—and alas! fail they generally will—gangrene and death will soon release the sufferer from his agonies. But it must be borne in mind that the fatal issue of such a case does not arise from any impracticability or even difficulty of cure; for it may be truly asserted that if we could accurately diagnose this accident soon after its occurrence, a considerable number of those who perish from it might be saved by the operation of cutting through the parietes of the abdomen, and dividing the stricture. I shall, therefore, mention, some diagnostic signs which would indicate internal strangulation:

1st. Previous good health up to the occurrence of the accident.

2nd. Instantaneous and severe pain within the abdomen, caused either by sudden exertion, external violence, or otherwise.

3rd. Vomiting immediately following such a sensation.

4th. Liability to hernia, although there be no existing protrusion discoverable.

These signs would, I think, be sufficiently conclusive in proof of internal displacement to warrant an abdominal exploration after all the ordinary means had failed. To show the value of the second diagnostic sign, there is a case recorded by Mr. Charles Bailey, of Chippenham, in the *Provincial Medical and Surgical Journal* of April 14th, 1852, in which a young man, aged 25, by falling over some large stones, occasioned a rent in the mesentery, through which three feet of the jejunum were found to have been forced and strangulated. Death was caused by mortification of the incarcerated bowel.

There does not appear to be a much greater risk in laying open the cavity of the abdomen to set free an incarcerated bowel within it than in the operation for a strangulated scrotal hernia of an average size. The division of the integuments, of the peritoneum, and of the stricture are nearly of the same extent; and yet it is remarkable how few cases of the former operation are found recorded, compared with the number of internal incarcerations that must have taken place.

On examining Dr. Hennen's excellent "General Index of the Medico-Chirurgical Transactions," I find only one case of internal strangulation, which was relieved by an operation; and this will be found in vol. xxx, p. 50.

When the patient has been subject to inguinal hernia, lest the obstruction might be caused by a small portion of the circumference of the bowel being grasped by the internal ring, it will be right to try to disentangle it by gravitation before any operation is performed. The attempt may be made in the following manner:—The knees of the patient are to be lifted up and flexed over the shoulders of a strong assistant; and in this position the trunk is to be suspended for some minutes, during which it may be suddenly elevated by the assistant three or four times. I saw one instance in which there was reason to believe this practice succeeded. A labourer, past the middle age, was suddenly attacked with abdominal pain, vomiting, and constipation, for the relief of which all ordinary remedies had failed. Being informed that he had been for a considerable time previously subject to a reducible inguinal hernia, the groin was attentively examined, but no trace of hernia could be detected. Supposing, nevertheless, that a small portion of the bowel may possibly be grasped by the internal ring, he was submitted to the above treatment of gravitation, which was soon followed by copious discharges of fecal matter, and a favourable termination.

It must, however, be confessed that we shall not often have distinct diagnostic signs of internal incarceration; and that from the want of these, and from the failure of other remedies, we shall be under the necessity of relying almost entirely on the *vis medicatrix nature* to effect some favourable change; and fortunately once now and then such a change is effected.

In the *Provincial Medical and Surgical Journal* of March 17th and 31st of the present year, two interesting cases of recovery from supposed internal strangulation are recorded; the first by Mr. John Soden, of

* Continued from page 297.

Bath, after thirteen days' constipation; the second by Dr. Barclay, of the Leicester Infirmary, after an obstruction of eight days; both of which appear to have recovered by the reparative powers of the constitution.

A few weeks ago Mr. Davids, of Cowes, requested me to accompany him to a case of intestinal obstruction, the symptoms of which appeared to be similar to those related by Mr. John Soden in the case above alluded to; but it terminated very differently. A sailor, of middle age, after eating a supper from oysters, was seized the following morning with gripping pain of the bowels, which resulted in obstruction, sickness, &c. The seat of the pain was in the right iliac region, which was tender under deep pressure, and tympanitic. He had been judiciously treated by blood-letting, by aperients, by calomel and opium, and by injections thrown into the sigmoid flexure of the colon. It was about the thirteenth day of constipation that I saw him. He had had stercoraceous vomiting for some days; but at this time it had subsided. There was not much inflation nor pain, excepting from deep pressure over the termination of the ileum, and wind occasionally passed from the rectum. His pulse was 84, regular, and of sufficient volume. His aspect was cheerful, and free from anxiety. Under these circumstances, all active treatment was withdrawn. He was supported with glysters of beef broth, in which were a few drops of laudanum, and a reasonable hope was entertained that he might recover; but shortly afterwards an unfavourable change took place, and he rapidly sunk under the symptoms of gangrene.

On examining the cavity of the abdomen, it was found to contain a considerable quantity of serous fluid, mixed with a small quantity of pus and flakes of lymph. The peritoneum was in some measure inflamed, and the small intestines congested, and of a dark mahogany colour. About three inches above the ileo-cæcal valve the ileum was constricted with a band of fibrous lymph, not so as to obliterate the cavity of the bowel, but enough to arrest its peristaltic action, impede the circulation, and destroy its vitality. Betwixt the constriction and the valve the gut was dilated into a blackish pouch, and at two points almost perforated by ulceration.

Here is a case of obstruction, which was evidently caused by internal strangulation; and yet there were no diagnostic symptoms which indicated such a cause. The fibrinous band was the result of sub-acute peritoneal inflammation, set up by the irritation of crude undigestible food.

When a portion of intestine has incarcerated itself by invagination, it may be explained by there being an inequality of peristaltic power between different portions of the tube; thus if the normal vermicular action of one portion cannot be continued along another, from its being incapable of maintaining the same degree of action, the stronger portion forces itself within the weaker, and at once doubles the parietes of the intestine; and this doubling process goes on contracting more and more the diameter of the intestinal tube till it becomes choked and impervious.

It appears that children are more liable to intussusception than adults. In a child of three years old, who died of intestinal obstruction, I found three portions of the small intestines which were invaginated. There are, I believe, no diagnostic signs that can be depended upon to indicate the occurrence of this peculiar accident, except that if by a careful manipulation of the abdomen soon after it is presumed to have taken place, any local hardness can be detected in the course of the intestinal canal, such hardness may be fairly imputed to intussusception, and dealt with accordingly. An early operation to disentangle the invaginated bowel is the only possible means of saving the life of the patient that the medical man can suggest; if this proposal be rejected, death will be the result. It is true that a very few cases are recorded (and two in the second volume of the "Transactions" of a Society for the Improvement of Medical and Chirurgical Knowledge, by Dr. Baillie,) where the mortified portion of the gut was separated, and was passed through the rectum; but these are the barest exceptions to the fatality of the rule.

V.—*Impassable Bodies.*

Intestinal obstructions may be caused by impassable bodies, either individually or collectively. By the former, when an indigestible substance is too large to pass the narrow parts of the tube; and by the latter, when a large quantity of crude substances having been swallowed, collect together in some part of the intestinal canal and block up the passage. As there is one part of the tube—the ilio-cæcal valve—which is perhaps more liable to this cause of obstruction than any other, I will briefly describe its construction. It is found where the bowel ileum terminates in the sac of the cæcum, commonly called the "cæcum caput coli." This is not an imaginary but a well-defined termination of the alimentary into the excrementitious intestine. The ileum passes obliquely up on the internal or left aspect of the cæcum, and, having reached the upper part of the sac, empties its contents into it. The valvular opening is elliptoid, and about an inch an half long from point to point. It is formed by two membranes—a superior and an inferior. The superior membrane is of a crescentic shape, about three quarters of an inch in breadth over the centre of the aperture, and with its cornua extends transversely across half the circumference of the cæcum, forming the boundary of the upper part of the sac. The inferior membrane completes the aperture of the valve by a short semilunar margin, the cornua of which are attached to the superior membrane under and a little behind its crescentic margin, consequently the superior membrane of the valve lies over the termination of the ileum. The use of this valve is obvious. It allows an easy passage of the faecal fluid from the small into the large intestine, and prevents its being impeded by the gravitation of the contents of the ascending colon. The inferior membrane, which is in fact the terminating boundary of the ileum, allows of the former, whilst the superior mem-

brane, acting as a kind of roof over the opening when the cœcum is distended, effects the latter.

The symptoms of this case are characterised by great severity. The pain well deserves the term "dolor atrox," and forces the sufferer to vociferate with agony. The severity of the pain may be explained by the sensitive villous coat being compressed from within by an impacted body, and from without by the vehement action of the muscular fibres in their instinctive efforts to propel it along the canal. The vomiting is incessant, and eventually stercoraceous. The abdomen is more or less inflated and tender over the seat of the obstruction; and any movement of the trunk tends to aggravate the pain.

If any crude matter has been swallowed that could account for the obstruction, the diagnosis would be easy enough; but it often happens that the obstructing body is furnished by the morbid action of the internal functions in the form of concretions, and then the diagnosis becomes exceedingly difficult. There is one symptom only, that I am aware of, which can be relied upon, and it is this:—If the symptoms of obstruction above described should suddenly cease, and be followed by liquid stools, and the pain afterwards return with renewed aggravations in another spot, we may be assured the obstruction has been occasioned by a large concretion, which has shifted its place. I will now adduce two examples of this kind of obstruction. The one where the cause was known from its being swallowed; the other, where it was correctly inferred.

Case 1.—A married lady, well formed, aged 26, having just arrived at Southampton from Ireland, incautiously made a hearty meal from stewed mushrooms, and the same afternoon went into a cold bath. Soon afterwards she was seized with most severe pain in the right iliac region, accompanied with constipation of the bowels and incessant vomiting. All the usual remedies—such as bleeding, the warm bath, calomel combined with large doses of opium, and various injections thrown up in the colon were tried; but as these means were of no avail, and as the anxiety for the result became intense, a consultation was held. At this time her sufferings were intolerable; and I well remember how earnestly she implored her medical attendants to perform an operation for her relief. This being considered inadmissible, and everything subsequently recommended having alike failed, she sank and died. Unfortunately permission could not be obtained to examine the abdomen; but there can be no doubt that the mushrooms, which probably had been hastily swallowed and but little masticated, collected *en masse* at the ileo-cœcal valve, obstructed the bowel, and caused her death.

Case 2.—A widowed lady, aged 50, of healthy aspect and rotund form, who had been recently exposed to great mental excitement and distress, was seized with vehement pain of the abdomen, below the umbilicus. Her agonies were extreme, and quickly returned in excruciating paroxysms. The vomiting soon became

stercoraceous, and was so incessant that nothing could be kept down for an instant. On this account it became necessary to abandon all remedies by the mouth, and employ them through the rectum; copious injections were therefore thrown up once about every four hours, which at length succeeded in causing the bowels to discharge a large quantity of fluid fœcal matter. This gave relief, and of course promised recovery to herself and all around her; but alas! the cheering prospect was soon again to be clouded over. The pain returned; and although still below the umbilicus, it was felt to be in a different spot. It was of equal vehemence, and with all its distressing associations, and she speedily sank under the renewed severity of her sufferings.

In this case the diagnosis was by no means easy during the first attack, but a ray of diagnostic light broke in upon the second; for the sudden and unexpected return of all the symptoms after the bowels had been freely relieved, and the pain being felt in a different part of the abdomen, could only be attributed to some obstructing body which had moved from its first lodgement to become fatal in the second.

On opening the abdomen a nest of large calculi was discovered impacted in the lower part of the ileum, which was the manifest cause of her sufferings and death. Each of the calculi had smooth flattened phases, showing where it was fitted to others. All might doubtless have passed singly; but the whole being nested together, and crusted over by layers of fœcal deposit, a mass was formed, which would not pass the termination of the ileum. The calculi were analyzed and found to consist principally of cholesterine, of which a considerable quantity was obtained in a pure crystalline state. It is scarcely possible that these concretions could have primarily formed in the gall bladder, because I never heard that she had complained of the sufferings which they must have occasioned from time to time in their passage through the biliary ducts.

In the treatment of intestinal obstruction from the lodgement of indigestible or extraneous bodies, all will of course depend upon whether the smallest diameter of the obstructing cause be less or greater than the smallest diameter of the intestinal canal through which it has to pass. If the former, some hope may be entertained from large doses of morphia—say a grain of the acetate once in two hours—a full bleeding, the warm bath, and a belladonna plaster over the seat of pain and repeated copious injections; but if the latter, no cure can be effected by any such means, because it is simply an impossibility. There only remains the "anceps remedium" of laying open the bowel and ridding it of its death-plug. And why should not this be done? There is no difficulty in the operation if there be courage to perform it. The surgeon does not hesitate to invade the trachea with the knife and abstract any foreign body that is threatening life by obstructing the respiratory canal; nor to divide the uterine parietes to extract a fœtus that is too large to pass through a narrow pelvis; nor to pierce the colon in stricture of the large intestine. Why then should we hesitate to open the intestinal canal in a case of this kind, to

extract obstructing bodies which are sure to destroy life? If we had ventured to perform such an operation in the cases above stated, it is possible that one or both of the sufferers might have been living at this time. When there is the certainty of death in the one scale, and the possibility of life by an operation in the other, there can be no difficulty in the choice; and although it is admitted to be the "*anceps remedium*," it is nevertheless the "*melius quam nullum*."

It was formerly the practice to administer several ounces of quicksilver to remove obstructions of the intestinal canal, and sometimes it was followed by apparent success; but the case about to be related will, I think, show the absurdity and danger of its adhibition.

A tradesman's wife, aged 50, of stout form and healthy aspect, was seized with severe spasmodic pain on the right side of the abdomen, followed by symptoms of obstruction of the intestines. The disease continued with great severity for several days, and various remedies were tried to subdue it, but as the bowels showed no disposition to act, it was resolved to give six ounces of quicksilver, which were readily swallowed. No relief, however, followed its adhibition, except that the character of the pain became in some degree changed; and shortly afterwards she sunk under symptoms of supervening gangrene.

On examining the abdomen, a large gall-stone, the shape and size of the transverse section of a common-sized mould candle, and two-thirds of an inch in length, which had passed the ductus communis choledochus, was found lying in the jejunum; and farther down the quicksilver was detected gravitating in a pouch of one of the convolutions of the ileum, where it had produced mortification of the gut, and thus the intended remedy and not the disease had caused the death of the patient. This must be looked upon as an unfortunate and at the same time an instructive case, showing the great importance of *post-mortem* explorations. It was unfortunate because it appeared that the passing of a large biliary concretion had been mistaken for obstruction of the bowels, the action of which had been merely suspended, whilst an immense gall-stone was being forced into the duodenum. It was instructive because it shows the absurdity and danger of giving quicksilver to remove an intestinal obstruction in quantities that might overpower by its gravity the peristaltic action of the bowel. It might be useful in these cases, if it had run down a continued descent; but as it has often to be propelled against its own gravity by the vermicular force, it is clear that if its gravitating weight be more than equal to the propelling force of the bowel, it must lodge and endanger the vitality of the part on which it lies, as it did in this case.

VI.—Organic Disease.

Obstruction from this cause is not of rare occurrence. In my own practice I have met with many instances. Organic disease, especially when situated in the cavity of the pelvis, may cause a total obstruction of the intestinal canal simply by external pressure, an instance

of which I have lately seen terminate fatally in this town, independent of any disease of the bowel; but it more commonly obstructs the canal by involving the bowel in its morbid action. The latter cause is that which will be treated under this head.

Organic stricture is generally met with in the large intestine, and more frequently in the sigmoid flexure of the colon and in the rectum. I have but seldom seen it occur in the small intestine between the pylorus and the termination of the ileum. It is always eventually fatal; for although a patient may survive a few attacks of obstruction, he is sure of being destroyed by the disease as the canal becomes either blocked up by it or perforated. The symptoms are much the same as in other intestinal obstructions, except that the pain is comparatively less spasmodic, and that, if the stricture be situated low down in the colon or in the rectum, the abdomen becomes inflated to an enormous extent, indeed I have so frequently seen extreme tympany in these cases, as to consider it almost diagnostic of this disease.

In some instances, before the first obstruction takes place, there is a sickly aspect and an occasional feeling of illness; whilst in others the general health is unimpaired, so that the patient is not at all aware that so serious a disease exists within him. When this disease is situated in the excrementitious part of the intestinal canal, it does not much atrophise the body; but on the other hand, when it involves the alimentary portion there is great emaciation, as we find in disease of the oesophagus, the pylorus, or of the small intestine. The following case was attended with previous illness:—

Admiral Sir Samuel W., of sallow and unhealthy aspect, aged 70, had felt himself ailing for a considerable time, which he attributed to bilious causes. He was not much attenuated and thought lightly of his complaint. At length he was attacked with severe pain in the left side of the abdomen, associated with obstruction of the bowels and vomiting. Every means were employed that could be suggested to mitigate his sufferings and move the bowels, but without any good effect. The disease went from bad to worse, the transverse arch of the colon and the intestines above it became enormously inflated, and he rapidly sunk. On examining the intestinal canal no obstruction was found till we came to the descending portion of the colon as it passes over the left kidney. There a carcinomatous stricture was discovered, which involved about two inches of the length of the bowel; and at this point the aperture was so contracted as not to admit the end of the little finger. The crown of one of the molar teeth was lying upon it.

The next case will show that an extensive scirrhus stricture might for a long time coexist with the possession of apparent good health.

A lady, aged 55, of fair complexion, plump form, and remarkably healthy aspect, who had been long accustomed to daily walking exercise, became at once affected with pain of the lower part of the abdomen, and

all the sufferings of obstructed bowels. These symptoms took her by surprise, as she had always enjoyed uninterrupted good health and had rarely occasion to resort to aperient medicine. Various means were tried to relieve her, but as they did not succeed it was deemed necessary to explore the rectum, when its upper part was found almost impervious by indurated masses of scirrhus disease. She was at length relieved principally by the introduction of a wax bougie and diluent injections; but a few months afterwards, when residing near London, she died of a second obstruction.

In the case also about to be related the general health was not previously impaired, and it will be found interesting from a trocar having been used to lessen the inflated distension of the colon.

A lady, aged 35, of fair complexion and well nourished, but of delicate constitution, was attacked with the symptoms of severe colic, the pain of the abdomen returning in vehement paroxysms. The case was obstinate, and resisted the remedies employed in the way of aperients, calomel and opium, enemata, the warm bath, &c. After some days the colon had become inflated beyond anything of the kind I had ever witnessed, so much so that the inaction of the bowels was reasonably attributed to the loss of peristaltic power from overdistension, and in consultation with Dr. Wood and Mr. Simpson, it was agreed that the transverse arch of the colon should be perforated by a fine trocar, and the rectum injected with cold water at given intervals. The first was done at once by the latter gentleman, and a large quantity of foetid gas escaped by the cannula; this caused the volume of the abdomen to subside, and by the repeated injection of cold water, a considerable quantity of liquid faecal matter passed the bowels. This was highly encouraging, but the improvement was only temporary. The symptoms of obstruction returned, the colon became again inflated, though in a less degree, and in about twenty days from the commencement of the attack she died.

The body was examined, and at the inferior termination of the sigmoid flexure of the colon, where the gut is about to enter the cavity of the pelvis, an organic stricture was detected, of a carcinomatous character, which, although it did not involve more than an inch of the length of the bowel, had almost closed the tube.

By an attentive examination of the symptoms, the diagnosis in intestinal obstruction from morbid stricture will not be difficult. The rectum should always be explored, either by the finger or a bougie, and if there, the disease will at once be discovered. If the rectum be found free, then, if the aspect of the patient have been for some time sallow and sickly,—if there be want of nutrition and wasting,—if the abdomen has been occasionally affected with darting pains, and be resonant under percussion,—if the stools have been previously relaxed, unhealthy in appearance, and mixed with blood and mucus,—and, in addition to these signs, if there have been previous obstruction, an organic stricture is clearly indicated.

In the treatment of this case all harsh measures are to be carefully avoided; and with a view to overcome any spasmodic or inflammatory action which the irritation of the stricture might have induced, it will be right to give half a grain of opium, and two grains of calomel, every two hours, whilst the pain remains, after which the draught (1) should be given every three hours till the bowels are acted upon:—

1.—R. *Magnesiae Sulphatis*,
Mannae Optimae, utrq., dr. ij.
Misturæ Amygdalæ, dr. x.

Misce fiat haustus.

If there be no action from these means in four or six hours, it will then be necessary to throw up into the sigmoid flexure, once in four hours, a copious glyster of warm water, with four grains of the extract of belladonna, in the hope of dilating the constriction sufficiently to let the faecal discharge pass through it.

This treatment may succeed once or twice, but eventually, as the intestinal canal is more and more filled up by the morbid growth, all remedies of this kind must fail. To save life under such imminent danger, M. Amussat, a French surgeon, in 1839 introduced the practice of perforating the colon above the stricture at some point where the wounding the peritoneum could be avoided, *i.e.*, through the lumbar region. This operation since that period has been performed many times by English surgeons, and sometimes also through the peritoneum; and it is probable that the latter has been occasionally preferred on account of the difficulty of maintaining an artificial anus through the depth of the lumbar muscles.

At a recent meeting of the Royal Medico-Chirurgical Society, Mr. Cæsar Hawkins read an important paper on this subject, and having related a successful case in his own practice, he brought forward tables showing the results of this operation, in various points of view, which occurred in 44 cases. In one of these tables it appears, that of 43 cases 21 had died within the first five weeks, and of these that ten had died within forty-eight hours; that 22 only could be fairly stated to have recovered from the operation, that of the 22 six had died in about six months from the time of the operation, and that only nine patients were at present known who had survived it more than one year, one of whom (Mr. Clement's case,) lived three years, and another (Mr. Maitland's,) lived seventeen years.

This statement is certainly discouraging; but when neither scirrhus nor carcinoma is *known* to characterise the stricture, when the obstruction is in the large intestine, and when the constitution does not appear to be much exhausted, the operation is justifiable, and if it can be performed without wounding the peritoneum, there will be a greater probability of success.

The constitution appears to sanction this mode of proceeding by sometimes taking the same course. Although the following case would in nowise have justified the operation for its own relief, still, as it will show the ulcerative process by which a communication was effected between the cæcum and the external part of the abdomen, and, as it is interesting in other points

of view, I will briefly relate it, and conclude the subject:—

J. J., of tender age, quick intellect, slight conformation, and delicate constitution, became gradually ailing with symptoms of mesenteric disease. The abdomen was swollen and painful, he lost flesh, and his general health declined. On this account he was placed under the care of eminent medical men in London, who sent him for a time to the sea-side; the disease, nevertheless, steadily though slowly advanced, and whilst the enlargement and tenderness of the abdomen increased, the rest of the body became attenuated. At length the quantity of the alvine discharges, which were of a pale-white colour, was observed to decrease, and as the quantity became less and less, an abscess was discovered to be forming externally on the right side of the abdomen, below the umbilicus. When it broke the faecal smell of the discharge at once proved that it came from the cavity of the intestine, and very soon afterwards a calculus, of a whitish colour, and about the size of a nutmeg, was found on the poultice. This abscess was succeeded by another more posteriorly; and through these openings several more calculi, of nearly the same size and colour, were from time to time expelled with the faecal matter. The expulsion of these concretions gave some hope of recovery, and every effort to effect it was redoubled, but no improvement took place. All the stools continued to pass through the abdominal openings, he became colourless and atrophied, the peritoneum infiltrated, his lower extremities anasarcous, and he gradually sunk from exhaustion.

On examining the abdominal viscera, the omenta and peritoneum were found studded with a multitude of small tubercles; and the mesentery, from the quantity and size of the tubercular masses it contained, was like a net bag full of white marbles. The external openings communicated with the cavity of the caecum, which had become the seat of an abscess, extending almost as high as the transverse arch of the colon. The involved portion of the gut was fixed by peritoneal adhesions superiorly to the acute margin of the large lobe of the liver, laterally to the omentum majus and small intestines, and inferiorly to the fundus of the bladder. The cavity of the caecum at its inferior extremity was freely open to the ileum; but its superior part was so blocked up by a fungoid growth that it would scarcely allow of the small end of a blow-pipe being passed into the transverse arch of the colon. The internal surface of the bowel presented a mass of chronic and irregular granulations of a dark red colour, some of which were elevated into nipple-like processes. The same dark colour pervaded the villous coat of the intestinal canal at either end of the disease, and that of the ileum, close to the ileo-caecal valve, was extensively ulcerated.

The *rationale* of this interesting case may be summed up in the following order:—Debility of constitution; tubercular diathesis; tubercles of the mesentery more actively developed; atrophy; softening of the tubercular matter in the villous coat of the caecum; super-

ficial ulceration of the same, extended and kept open by the irritation of faecal matter; granulations shooting up, and by degrees obstructing the passage of the colon; formation of concretions by the gradual deposit of the phosphates upon indigestible nuclei, namely,—orange pips, apple pips, &c., which were found in their centres; and lastly, ulcerations through the abdominal parietes, to expel the calculi, and serve as an outlet for the faeces.

[To be continued.]

Southampton, May 17, 1852.

REMARKS

ON THE

TREATMENT OF BURNS AND SCALDS.*

By W. J. MOORE, Esq.,

Resident Surgeon to the Queen's Hospital, Birmingham.

BURNS or scalds involving the neck and upper part of the chest, are undoubtedly to be dreaded more than those of other parts of the body; first, from their tendency to terminate fatally, either by laryngitis or pneumonia; and secondly, from the great difficulty of preventing the deformity so liable to occur in such a situation during the healing process. Bandages and splints are here not easily applied; and it likewise requires much firmness, both on the part of the patient and surgeon, to prevent the head from inclining downwards. If a patient, severely burned, does not die of the collapse consequent on the accident, there are still other grave causes of danger, most frequently, perhaps, having reference to the respiratory organs, congestion of the lungs, sometimes complete pneumonia, and more rarely laryngitis, coming on. Sometimes, however, there is no collapse present, and the patient goes on well for one, two, or three days, when suddenly the breathing becomes difficult, the pulse perhaps being increased in volume, and countenance flushed; in a short time, however, (an hour or two,) the extremities become cold, the pulse intermittent, and the patient rapidly dies by asthenia; at other times he seems to rally from this state, and then the lungs certainly become affected.

When a patient is seen thus, the difficulty of breathing having come on suddenly, it is often a nice point to diagnose the probable termination, and therefore to determine with certainty the proper treatment. Supposing the case to terminate by asthenia, wine and brandy should certainly be administered; but if given, and the patient should survive and have pneumonia, they will without doubt do injury. Leeches, with antimony, are here called for; and with children the application of two or three to the spine, and the exhibition of small doses of antimony, combined with tincture of cardamons, has often been followed by success.

* Concluded from page 308.