ileo-cæcal valve are as far advanced as those higher up, is explained away by the fact that the secondary lesions ulcerate much more rapidly than the primary, and are in a week as far advanced in their pathological course as those primarily affected a fortnight earlier.

4. The extent of the intestinal lesion, as revealed by examination after death, bears no relation to the severity of the abdominal symptoms during life. The severity of the abdominal symptoms is judged of very much by the amount of diarrhœa. In cases in which the bowels are moved several times a day the sloughs and discharges are carried off as quickly as they separate, and thus do their minimum of harm. Where constipation exists they are retained, and so have an increased chance of inoculating healthy glands. Where constipation exists there may thus be produced an amount of local disease greater than would have existed had the abdominal symptoms been more marked, and the discharges carried off more speedily.

When considering the difference between the primary and secondary lesions it was noted, *inter alia*, that in the primary lesions the process of destruction commenced in the interior, the diseased gland forming a slough which separated bodily,* while in the secondary the destructive process commenced on the surface, and proceeded inwards. As a consequence of this mode of formation of the ulcers, the primary lesions seldom extend beyond the base of the glands—that is to say, they involve the mucous and submucous coats, reaching, but not penetrating, the muscular. In the secondary lesions the ulcerative process commences on the surface, and proceeds inwards, rapidly destroying the mucous and submucous coats, but does not have the same reason for stopping there, and hence is more apt to invade the muscular and peritoneal coats. In this way is to be explained the fact that perforation most frequently occurs in cases in which, up to the moment of its occurrence, the abdominal symptoms have been by no means marked. This accident, indeed, often happens in cases in which such symptoms have been altogether wanting. How is this? It seems very like a paradox to say that perforation, the acme of all that is severe in the bowel lesion, is most common in cases in which the evidence of that lesion is almost or altogether wanting. Paradoxical as it appears, it is nevertheless true. The explanation of this fact is that the perforation is the result, not of a primary, but of a secondary lesion; for if in these mild cases the number of glands primarily involved is comparatively small (as I believe it is) there remains a larger number of sound glands liable to inoculation; and as the risk of perforation is directly as the extent and number of the secondary lesions, it follows that the probability of that accident occurring as a consequence of such a lesion bears some relation to the mildness of the attack. It is to be noted, too, that perforation generally occurs low down in the ileum, where we have seen that secondary ulceration is most abundant and most active.

Hæmorrhage, too, when it occurs to any extent, usually proceeds from a secondary ulcer. So long as the mucous and submucous coats only are involved profuse hæmorrhage is not likely to occur, there being in them no vessels sufficiently large for the production of such a result. When the muscular coat is invaded, however, the risk is much increased, for between the transverse and longitudinal fibres there run vessels of considerably larger size than those found in the submucous tissue. These vessels run a great risk of being opened into by an ulcer which eats into the muscular coat. This it is which imparts to even a slight hæmorrhage occurring late in the case an importance which would not attach to it at an earlier period. It indicates a still progressive secondary ulcer, and there is no saying where such an ulcer may stop. It may open into other vessels, or involve the peritoneum in its destructive course.

The time when the sloughs are separating is generally, I had almost said universally, regarded as the period of greatest danger, so far as the bowel lesion is concerned. Experience shows that the danger from that lesion increases the longer the fever continues, and that from the beginning of the fourth week onwards it is at its greatest. Now it

can scarcely be supposed that a slough, which is formed during the second week (as most if not all of them are), which is necessarily of limited size, and which is seated in a very vascular structure, should take a fortnight or three weeks to separate. Yet such a conclusion is the inevitable outcome of the generally entertained opinion. The position seems to me quite untenable. I believe that the whole process of inflammation and destruction of the glands primarily involved, and separation of the resulting sloughs, never occupies more than three weeks, and that the prolongation of the disease beyond that period, and all the consequent risks and dangers, are attributable to the formation of secondary lesions, the distinguishing characteristics of which are the rapidity with which they are formed and the greater tendency which they show to extend beyond the submucous coat. I believe that hæmorrhage seldom, if ever, occurs before the primary sloughs begin to separate, and that the bleeding which occasionally takes place at that time is rarely a source of danger. It is generally very slight. Dangerous hæmorrhage, as already explained, comes on late in the case, when the primary sloughs are detached, and when the secondary ulcers are still pursuing their destructive course, threatening the larger vessels of the muscular coat.

In the vast majority of cases in which death is attributable to the intestinal complication, the fatal event is the result of the destructive ulceration of the secondary lesions.

When a patient dies of typhoid fever within the first fortnight, death is due to the intensity of the poison, and not to the abdominal mischief. In most cases in which the bowel lesion is the source of danger, the urgent symptoms are developed late in the case—seldom before the middle or end of the third week, generally during the fourth or fifth, by which time it may be presumed that the sloughs have separated from the primary lesions; the exacerbation of the local mischief being due to inoculation of fresh glands by the poisonous discharges of those primarily affected.

If the discharges are so virulent, why, it may be asked, do they not affect the solitary glands of the large intestine? In the majority of cases these glands do escape. This is attributable chiefly to their small size and sparse distribution, it being evident that the risk of a drop of virus bearing discharge* lodging over a small solitary gland in the capacious large intestine is very much less than the chance of its lodging over a good-sized patch in the attenuated small intestine; in the latter, too, the discharges are retained for a time in contact with the glands by the action of the sphincter ilei, while in the former they are in constant motion.

(To be concluded.)

A CASE OF ABDOMINAL PREGNANCY; RUPTURE OF THE GREAT INTESTINE; CÆSAREAN OPERATION AND CURE.

By J. H. ADAMS, M.D.,
SURGEON TO THE SOROCABA HOSPITAL, BRAZILS.

THE following is such a rare case (if ever it has been met with by any of my surgical brethren) that I cannot refrain from communicating it to the widely-circulated LANCET, being sure that it will be of interest to the medical profession.

Blandina de Barros, a mulatta, aged thirty, married, to all appearance of a sound and well-constructed frame, was admitted into the hospital 13th October last, being, as she herself thought, between the seventh and ninth month of pregnancy. She complained of great bodily suffering and pains through the whole of her system, particularly at the pit of the stomach and loins. When she completed the ninth month and expected to be delivered, her pains ceased, and the whole of her body became œdematous to an alarming degree.

Previous to her admission into the hospital she had consulted two Brazilian doctors, who diagnosticated her disease to be ovaritis and metritis, and treated her with

* This is a result of the mere mechanical pressure of the effusion on the vessels which supply the glands. The vessels are so pressed upon that the glands die for want of nourishment. A consideration of their mode of vascular supply will readily explain this.

* I regard it as proved by the observations of M. Chauveau and Dr. Sanderson that contagium is particulate.

iodine and mercury, &c., and externally with leeches, blisters, and embrocations for nearly four months, until the poor creature became quite a skeleton, without, however, any reduction in the supposed tumour. At last she had such a bad smell from the body that no one would attend her. She had also an ulceration and fistula near the navel, which discharged matter and fæces; likewise, for about a month, a discharge of pus from the rectum in great quantity.

In this state she was sent to the hospital. I examined the swelling or tumour, and it appeared to me that the woman was right about her pregnancy. I explored the uterus and found it empty. I made an injection through the fistula near the navel into the abdomen, and with light pressure the liquid returned immediately, bringing with it matter and fæces. I thought I could detect some foreign body at the mouth of the fistula. I took a pair of small forceps and extracted it, and, to my surprise, the radius of the child in a few seconds appeared. I extracted also the ulna. Another slight compression brought nothing but matter. The greatest volume of the tumour being more than four inches to the right further down, I proposed to the patient to operate, and she consented.

At 2 P.M. the same day I administered chloroform with some reluctance, considering her weak state (pulse 50), and performed the Cæsarean operation. Having made an incision six inches long, and cut through the walls of the abdomen and peritoneum, I found there was a complete adherence with the walls and no cavity. I tried to pass my finger into the opening, but found a resistance every way. I cleaned away with a sponge the clots of blood and some liquid, and made a minute examination. I found quite a fabric of cells and foreign membranes attached to the walls of the peritoneum, cellular membranes and a fibrous network with vessels forming a second diaphragm, enveloping the intestines and also keeping the fœtus from view. The ovaries were quite shrivelled up. I could not attempt such an enormous dissection, so I determined to separate what I could by the finger to get at the fœtus. Having done this, I extracted the child in a state of complete decomposition or putrefaction. The body was intact, but it had parted from the head, hands, and feet. I found the head, the bones of which were complete. I could not find the hands or feet in the cavity. I concluded that, as the radius and ulna had been discharged, so the tarsus and metacarpus and phalanges might have passed by the rectum, as she had for upwards of a month discharged a great quantity of matter before being brought into hospital. Having cleaned out the cavity with a sponge dipped in chlorinated soda, camphorated oil and compound tincture of benzoin, I made an exploration by the uterus, rectum, and incision. The uterus was in its normal state, but did not communicate with the abdomen except through the Fallopian and ovarian tubes. Both ovaries were shrivelled up and almost atrophied. The rectum contained three fistulæ, communicating with the cavity of the abdomen, through which the matter and fæces were discharged. The large intestine had ruptured, ulcerated, and separated. I could not detect the end, being buried in the mass of cells. The whole of the intestines were completely hidden in new-formed membranes. The sphincter appeared to have lost its contractile power, the anus being quite shrivelled up. The intestine appeared to have parted near the anal orifice. On the left side of the ovary was a fistulous opening, which afterwards proved to be a point of the intestine. The state of the uterus, the vessels, and foreign membranes that I met with in the peritoneum, observed through the incision, proves to me that the pregnancy had been abdominal. Having closed the wound and put on the bandages, I ordered the patient three grains of opium and one ounce of aromatic infusion for the night.

The next morning she told me that she had not slept so well and passed such a good night for many months.

Oct. 14th.—Pulse 55, very weak. Has had chills; complaints of great exhaustion. Ordered port wine and quinine. Great discharge of matter, mixed with fæces, from the incision.

From this date she gradually improved, till the 10th of November, when the incision had almost cicatrised, and the fæces were discharged through the rectum by the anus. She complained of a little pain in the canal, but walked about and wished to leave the hospital.

Sorocaba, Brazils, 15th November, 1871.

A Mirror

OF

HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

(Cases under the care of Dr. WILKS.)

ON the 4th inst. we paid a visit to the clinical wards of this hospital, and accompanied Dr. Wilks (who is at present in charge of the wards) while he made the round of his patients.

The Relative Advantages of Stimulants and Bloodletting; the tricuspid bruit.—Dr. Wilks discussed at some length the treatment indicated for a case of *emphysema and bronchitis* which had just been admitted. The patient was a thin old woman of about sixty years. She was intensely cyanotic; the small veins of the face were enlarged and distended, the jugulars standing out in bold relief. She was lying supported by pillows, with her head high, gasping for breath. There was next to no expansion of the chest. The feet were swollen, the abdomen was large and contained fluid, and the pulse was small and weak. She complained of feeling cold and exhausted, and begged for a little wine. The majority of practitioners, said Dr. Wilks, would at once accede to her request, and, because her pulse was feeble, would order her a considerable quantity of alcohol. This was not his idea of scientific treatment. The pulse was weak because the blood, being unable to pass the right side of the heart, entered the left ventricle in only small quantities. The blood was dammed back in the veins, and throughout the body there was a condition of extreme venous engorgement, which no amount of alcohol would relieve. The real scientific treatment for the case would be, he believed, to relieve the venous system by taking some blood. The jugular vein was by its swollen condition asking to be opened. Ultimately the patient was ordered to be bled to five or six ounces. There was no doubt, from the general condition of the patient, and especially from the state of her jugular veins, that there was considerable dilatation of the right side of the heart. There was undoubtedly regurgitation through the tricuspid orifice, and yet no murmur was audible. This was quite in accordance with Dr. Wilks's experience, that no amount of regurgitation through this orifice gave rise to a bruit unless there was disease of the valves as well. There was a considerable quantity of fluid in the peritoneal cavity, and there was little doubt that there was some cirrhosis of the liver. Very many of the patients had cirrhosis, and it was highly probable that the stimulants taken to relieve the breath were often answerable for this. It was most important to give alcohol with precisely the same care and exactness as other drugs. Dr. Wilks had a patient up stairs (a boy) to whom he was giving spirits of wine in drachm doses, and he was doing very well upon it. It was highly probable that the plan of universal bloodletting pursued by our forefathers was, on the whole, productive of less evil than the modern plan of universal stimulation.

We have since learnt, through the kindness of Mr. C. J. Oldham, that this patient, as well as another in a similar condition, experienced immediate and marked relief after six ounces of blood had been taken from the arm.

The Diagnosis of Thoracic Tumours; the assistance to be derived from the laryngoscope.—Another case which presented itself for diagnosis was that of a man past the prime of life with a frequent *laryngeal cough*. There was considerable expectoration of watery fluid with some mucus. There was dulness in the right infra-clavicular region, with some doubtful pulsation in the second right interspace. The air did not enter the left lung so freely as the right. There was some difficulty of swallowing, but the mouth and pharynx were to all appearance healthy. Auscultation gave no decided information. The second sound of the heart was accentuated. The great probability here was that we had to deal with a