CASE I.

A girl, the only child, was admitted on April 19th, under the care of Dr. Lees, to whom I am indebted for leave to publish this account. There was a history of four previous attacks, during the preceding eight months, similar to the one she then suffered from. The first attack was in August, 1903, when she vomited everything she took for a fortnight, and wasted rapidly. Afterwards she ate ravenously and regained good health, which remained until the second attack three months later. On that occasion great thirst and vomiting lasted again for a fortnight. The third attack was two months later—in January, 1904—and lasted about the same time. Two days before admission the fourth attack had started, preceded by watery diarrhoea for twelve hours. Since then she had been constipated. Before all these attacks the mother had noticed that she was languid for several hours. On each occasion the vomiting had been almost incessant, and she had been very drowsy and thirsty. The bowels were said to have been regular and the urine scanty. The breath was always rather offensive, especially in the morning. After each attack she had been mottled by a "measly rash," and on one occasion had developed a boil on her finger. She had always been a very fretful child. There was nothing of importance in the family history.

On admission, she was found to be fairly well nourished, but looking extremely ill. The eyes were heavy and sunken, the breath was very offensive and smelt strongly of acetone. The tongue was coated and dry. The temperature was 99°, the pulse 160, and the respirations 32. She took little notice of her surroundings except to cry continually for water, which she was quite unable to retain. The abdomen was moderately distended, but nothing abnormal could be felt by it except that the liver edge reached two fingerbreadths below the costal margin. The urine was acid and contained no sugar; it was not tested for acetone on this occasion.

Four ounces of saline were injected three-hourly by the rectum, and the stomach washed out. She continued to vomit, and collapsed. The temperature dropped to 95° F., and later in the day she became very restless and was given morphine hypodermically. After the injection she became drowsy. Next day she began to recover: convalescence was rapid, and seven days later she was discharged. On one occasion a faint trace of albumen had been found in the urine. During convalescence she developed a morbilliform rash, for which she was isolated.

Six weeks later she was readmitted for her fifth attack. This began as before with watery diarrhoea, and there was some abdominal pain and headache. She then vomited once and seemed ill, but diarrhoea and vomiting ceased for twelve hours. Vomiting then restarted, and became almost incessant. Diarrhoea gave place to absolute constipation. Since her last attack she had been quite well except for a boil in her nose.

When examined after admission she was found to be in much the same condition as before. The breath was sweet, the cheeks flushed, the eyes sunken, the tongue coated, and she was very thirsty. The temperature was 100.4°, the respirations 24, and pulse 145. The abdomen was flaccid and easily allowed the liver edge to be felt, $2\frac{1}{2}$ fingerbreadths below the costal margin. The urine contained acetone and a cloud of albumen, but no sugar. Vomiting continued, and the next day she became drowsy, which deepened into complete loss of consciousness. The urine was now tested for acetic acid which was found in great quantity. About sixty hours after the onset, the temperature began to rise, the respirations became like those of diabetic coma, the pulse became very feeble, she had five general convulsions and died with a temperature of 110° F. She had again been treated by rectal salines and brandy. Sodium bicarbonate had been tried but could not be retained.

Post-mortem Examination.

The liver was large and in a condition of advanced fatty degeneration. The kidneys were also fatty. There was no nephritis. The left suprarenal body contained a small wedge-shaped haemorrhagic focus. The mucous membrane of the posterior wall of the stomach was mottled also by dark red areas of haemorrhage. Beyond this nothing abnormal was found macroscopically. I must thank Dr. Forbes for the following histological report:

Microscopically, the appearance of the liver confirmed the opinion arrived at by the naked eye that fatty degeneration was advanced. The kidney section showed only fatty degeneration and a few interstitial haemorrhages. The left suprarenal was much congested and contained haemorrhages and altered blood pigment. The gastric glands were degenerate, and here also small haemorrhages were seen among the gland tubules. There was slight increase of fibrous tissue in the pancreas.

There was nothing, then, definite *post mortem* which could not be attributed to inanition and fever and to the terminal convulsions. The large size of the liver and its extreme fatty change were, however, very suggestive.

CASE II.

A boy, aged 6½ years, in whom recurrent vomiting was associated with mental deficiency. He was admitted to the Hospital for Sick Children on October 10th, 1904, under the care of Dr. Penrose, who has kindly allowed me to use the notes. There was a history of ten or twelve attacks of vomiting similar to the one he then had. These had occurred at irregular intervals since infancy. The chief symptoms noticed had been vomiting, irritability, restlessness, and drowsiness. The duration of attack had been about a week. When vomiting had ceased he had appeared quite well, and ate voraciously. The attack for which he was then admitted had started four days previously, with vomiting and restlessness, which had continued up to his admission.

The vomit was described as yellow and green at first, and later brown, and as having a sickly odour. It had been ejected with much distressing retching. The bowels had not been moved since the onset, but before had been regular. The day before admission he lay "quiet and exhausted," and complained of headache. There was insanity in the family history.

When examined after admission he was found to be semiconscious, with flushed face and sunken eyes. There was double ptosis. With great difficulty he could be roused, and then always asked for water. The lips and tongue were dry. The abdomen was retracted. The liver and spleen were not enlarged. Nothing abnormal was found in the chest, and there was no evidence of a nervous lesion.

The urine was strongly acid, and contained abundance of acetone and diacetic acid, but no albumen or sugar. Acetone could also be detected in the breath. The temperature was 101° F., the pulse 156, regular, but small, the respirations were deep and sighing. During the first twenty-four hours he vomited everything he took by the mouth. The next day vomiting had almost ceased and he was less drowsy. The quantity of acetone and diacetic acid in the urine was less. The breath was, however, still sweet. The bowels were opened naturally. In another twenty-four hours the abnormal urinary products had disappeared; he was no longer drowsy, and was taking food. This was the beginning of a convalescence during which he rapidly returned to his normal state. In this case no specific treatment had been used.

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A CASE OF HAEMATHEMESIS AND MELAENA IN AN INFANT 2 DAYS OLD: RECOVERY.

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CASES of true melaena neonatorum being so extremely rare, we venture to publish the following case which recently occurred in our practice, and which presents several points of interest.

On December 4th, 1904, about 10 p.m., we were called to see a male Hebrew child, K., for the first time. It had been born on the previous day, about 11 p.m. The labour, which was attended by a midwife, was in every way normal. There was no history of any injury received by the mother during pregnancy or delivery, or by the child after it was born. The cord, as far as we could ascertain, was tied a considerable time after the birth of the child.

About 5 p.m. on the day on which we were called the child was suddenly attacked by severe vomiting of blood. He brought up, according to the mother's statement, about a tablespoonful of blood almost every hour, the attack being provoked by feeding. In the first attack the blood was of a chocolate colour and partly coagulated. In the following attacks which we had the opportunity to witness, the blood was of a bright red colour, and contained no air bubbles. The colour of the stools was at first that of meconium, but was afterwards altered by the appearance of blood, which latter also stained the napkins. The child was fairly well developed, weighed over 6 lb., and but for the subnormal temperature (97° F.) did not at the time appear very much the worse for the loss of blood. The fontanelle was not depressed, and the heart beats were regular. The mucous membranes did not look pale, and did not bleed. There was no icterus and no history of syphilis, phthisis, or haemophilia. The pharynx and tonsils were of normal appearance. There was no epistaxis, and there were no fissures in the mother's nipples.

We prescribed alum in $\frac{1}{4}$ -gr. doses and lime water (the latter was approved of by Sir Luder Brunton). The improvement was only slight, and, taking into consideration the unfavourable surroundings and the inability of the parents to procure a nurse, we referred the case to the London Hospital, where it was taken in under the care of Dr. L. A. Smith, who was kind enough to inform us that he treated it with bism. subcarb. gr. v and calcium chloride gr. j three times a day. The child was discharged cured on December 11th, 1904, after a stay at the hospital of six days.

Circumcision, which should have taken place on the seventh day after birth, was, by our orders, indefinitely postponed. We have seen the child on several occasions since then—the last time on January 20th, 1905—and we are glad to say it is doing very well, although it now looks somewhat pale.

The suggestions as to the causes of melaena neonatorum are numerous. Kiwisch attributes it to hyperaemia of the

mucous membrane of the alimentary canal, due to sudden occlusion of the umbilical arteries, brought about by too early ligature of the umbilical cord. As, however, in the above case the cord was tied a good many minutes after the child was born this hypothesis is evidently untenable here.

Landau's theory, which is similarly excluded here, is that the condition is brought about by thrombosis of the umbilical vein caused by ligature of the cord before respiration has been fully established; emboli are thus set free into the vena cava inferior, and, passing through the right heart and the pulmonary artery, find their way through the ductus arteriosus into the pancreaticoduodenal artery. Wickham Legge suggests congenital absence of the common bile duct, but as there was no icterus in our case, this cause must also be excluded.

We can further exclude the probability of the child having swallowed blood from the maternal passages during parturition by the fact that the quantity of blood was very large and the stools also contained blood.

According to Epstein and Klebs, and Townsend, the condition is one of infectious origin; but the absence of fever in the above case is not in harmony with this suggestion. Düsser, who collected reports of 24 fatal cases, found ulcers of the stomach in 9 and of the intestines in 4. Gastric ulcer seems to be the most probable cause of the mischief in this particular case, as the attacks followed immediately after feeding, and the condition has also yielded to the ordinary treatment for gastric ulcer.

The recovery in this case is highly gratifying, as infants do not stand great loss of blood at all well. Riilliet records 50 per cent. of fatal issue. According to Eichhorst the mortality is still higher, and he is even of opinion that in cases in which the haemorrhage lasts longer than thirty-six hours recovery is exceptional. We may mention here that in our case the haemorrhage extended over three days.

As regards treatment, whilst there is a difference of opinion concerning the temperature of external applications—Eichhorst suggesting cold, and Alfred Vogel, in common with English authorities, recommending hot poultices—all agree as to the drug treatment, which should be of a styptic character—for example, iron perchloride, calcium chloride, suprarenal extract, and other haemostatics.

A CASE OF LONG-STANDING CONSTIPATION.

By HARRY GREY, M.D. EDIN.,
Kingsbridge.

THE patient came under my observation at the age of 13½, and for eleven of these years he had been accustomed to have his bowels relieved only at intervals of three to six weeks.

On one occasion two months elapsed between the acts, and the mother of the boy fixes this time by the fact that she had taken him to a seaside resort, where she stayed that period, and she was quite positive that no action of the bowels had taken place the whole time they were there. A significant incident of that sojourn was a visit paid to a local doctor, who quite flatly disbelieved the mother's story and told her to give the boy a dose of castor-oil, which had no effect. I got a hint for treatment from a question by the mother as to whether alcohol acted as a cathartic, as on one occasion when the boy was very poorly she had given him half a glassful of whisky, which was followed by a copious evacuation.

An interesting point in this case is the age at which the trouble began. At 2 years of age the sigmoid flexure of the colon is still much longer than in later life, and, as I found, this redundancy had persisted in the patient and aggravated his condition. It is surprising, however, how little the boy suffered from it. Occasional colic and vomiting, faintness, and headaches were his main symptoms. Latterly he had complained of pain in the front of the thighs, caused partly by pressure of the faecal accumulation on the anterior crural nerve and partly by the stretching of the fascia and skin over Poupert's ligament. More severe damage had been done to his physical and mental development. Though nearly 14 years of age he is still a child in manners, and though his stature is about normal (4 ft. 10 in.) he weighs only 4 st. 8 lb., as against the average at that age of 6 st. 4 lb.

The appearance of the abdomen is shown in the photograph, taken before treatment was begun, and any doubt as to the truth of the facts narrated above was dispelled by a palpation

of the enormous tumour, which felt like a full-term fetus *in utero*.

Verification, if such had been needed, was afforded by the result of treatment, as in the first week I removed 26½ lb. of nearly solid faecal matter, one day's record being 7½ lb. in four movements. These weights were carefully noted by the matron in charge of the Cottage Hospital, to which, for convenience of initial treatment, the boy was removed. Dr. Webb, of Kingsbridge, also saw the patient frequently, and can corroborate the facts of the case, incredible as they appear.

I have referred to the infantile condition of the descending colon; altogether 29½ lb. of retained faeces was passed in nine days; and the course of the bowel could be traced by the movement of the last solid lump; it felt like a 16-lb. cannon ball under the fingers, and just before evacuation was found in the right iliac fossa; from there one could move it down into the pelvis, up again into the left iliac fossa, and thence into the rectum. I mentioned the failure of castor oil to produce catharsis, and of course purgatives of every sort and size had, without success, been tried at the recommendation of both friends and doctors.

On rectal examination I found the sphincter ani firmly contracted, so much so that at the first attempt I failed to pass my finger, and I think it is quite likely that the whisky given on one occasion by the mother, was really the producer of the evacuation which followed, owing to its sedative and analgesic action upon the sphincter muscle. Acting upon this hypothesis, I administered ¼ gr. of cocaine by suppository, and was able thereafter to pass the finger into the rectum, which was distended with a huge faecal mass, very hard and firm. I then put the boy on morphine, administered in the form of ½ gr. suppository three and four times a day, and proceeded to remove the faeces by enemata of hot olive oil, 30 oz. twice a day. These continued for nine days, until the colour of the faecal matter began to change from slaty blue to more normal brown, by which time 29½ lb. had been voided.

Thereafter a suitable dietary, with Kepler emulsion, a pill of aloes and iron four times a day, massage to the whole body, and especially the abdominal muscles, and gymnastic exercises were ordered. The aloes-and-iron pills were gradually reduced in number until after three months only one a day was taken. In three weeks, again, this also was dropped, and now for two months no medicine of any kind has been taken, the boy has had an evacuation every day to the minute, he weighs 6 st. 4½ lb. (an increase of 24 lb. in six months), has lost the peculiar facial appearance and