

In the former, that of a spare man aged 51 years, the leucocytosis never rose above 11,500 and yet although there was no pus there was most extensive ulceration of the appendix. The clinical symptoms seemed to accord with the result of the blood examination. Case 13 is interesting. The girl was admitted to hospital in no very serious condition from the clinical point of view. The leucocytes numbered 25,000 with 85 per cent of polymorphonuclears; on the next day they were 27,300 and on operation a long and gangrenous appendix was removed. The temperature fell, the wound healed, the bowels were opened, and no pain was felt. The clinical picture was in all respects highly satisfactory. Yet nearly a week after the operation the leucocytes were 29,250. The evacuation of a deep collection of pus a few days later explained this apparent anomaly. Perhaps Case 25 may be noticed as an example of the influence of age.

Table III., showing blood counts in various abdominal affections, presents some interesting points. In Case 1 the somewhat high eosinophile count was probably caused by the presence of worms. In the first six cases, which were tuberculous in character, the number of lymphocytes is rather high. Cases 7 and 8 are high in eosinophiles which is said to be the distinguishing feature of the blood in hydatid cases. Case 9 is particularly interesting. The man was seized with sudden abdominal pain about 1.30. He was admitted to hospital in a very collapsed state and remained so for three hours; he then vomited slightly twice and there was a streak of blood in the vomit. The pulse rose from 80 to 100. The abdomen was rigid but not tender and there was some diminution in the hepatic dullness. At 6.30 reaction began to set in. At 7.30 I counted his blood but unfortunately omitted to make any films. The leucocytes, however, numbered 22,950. The abdomen was opened at 8.15 and free fluid and a little gas were found; there was no lymph but the peritoneum was infected. A perforation of the stomach was found. The interest of this case is the fact that the leucocytosis occurred with such rapidity.

In conclusion, I must express my indebtedness to the medical and surgical staff of St. George's Hospital for their kindness in placing their clinical material at my disposal. I hope that the tables will serve as an illustration of the value and the shortcomings of blood examinations in abdominal diseases. I think that we cannot regard a leucocytosis as an absolute and infallible indication of the presence of pus, but as an indication of toxæmia its value appears to me very great. Although I do not think it possible at present to fix any definite relationship between the amount of the leucocytosis and the intensity of the toxæmia, yet the broad fact remains that an increasing leucocytosis is, other things being equal, the most scientific means at our disposal for gauging the increasing virulence of an appendicular infection. On the other hand, a decreasing leucocytosis is evidence of decreasing virulence or walling off of the toxic products.

I cannot do better than sum up the practical moral in the words of da Costa: "The surgeon who attempts to use the blood count in appendicitis as a definite pathognomonic sign will soon run afoul of diagnostic disasters; but he who regards it as only a symptom invariably to be correlated with other equally, if not more, important clinical manifestations cannot fail to find this method of inquiry of signal value in routine clinical surgery."

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN UNUSUAL VESICULAR ERUPTION.

By JOHN REID, M.A., M.D., C.M. ABERD.

In February, 1902, I saw a young man who was supposed to be suffering from herpes of the face following influenza. There were a few vesicles about his neck, and the influenza—now bronchitis only—soon disappeared. The young man was of a healthy family and he had up to this date had no illness whatever. As the rash continued to spread over the body and extremities in the shape of vesicles or bullæ some were three inches long and about half an inch wide the disease was

treated with antiparasitic remedies. The fluid of the vesicles was clear and it never contained pus at any stage; even after the vesicles were pricked they never produced pus. They dried up into scabs or scales. The large raw surfaces on the abdomen and other parts of the body made life uncomfortable for the patient whose health otherwise was good. The patient worked in a dairy and had much to do with chaff-cutting, the straw in many cases being described by him as containing "smut." The vesicular fluid, dried and examined under the microscope, also undried, contained what appeared to me to be *uredines*, or very like the growth obtained by me in November, 1885, from growing rust on wheat in connexion with a pneumonia epidemic. The disease improved by the treatment but was very stubborn.

Southfields, S.W.

SPONTANEOUS CURE OF AN UMBILICAL FÆCAL FISTULA.

By GOPAL R. TAMBE, M.A., B.S.S., L.M. & S.,
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ON June 14th a man, aged 45 years, a Mahomedan, came under my care at the Maharajah Tukoji-Rao Hospital in Indore, Central India. He suffered from a fluctuating tumour at the umbilicus, which latter bulged out for a distance of one and a half inches from the abdominal wall and presented a small opening surrounded by exuberant granulations. On gentle pressure being made a drop of purulent discharge escaped from the opening. I therefore afterwards administered chloroform and cautiously opened the abscess on a director, when to my surprise I found three solid masses resting on the floor of the cavity. Much pus was washed out and the cavity was stuffed with iodoform gauze. Further examination of these three masses under the microscope and otherwise showed that they consisted of fæcal matter and had apparently escaped from a fæcal fistula which had subsequently become closed. The history given by the patient was that the abscess had been of a month's duration and that previously to noticing it he had not experienced the slightest trouble or inconvenience. Considering the risks habitually involved in perforation of the intestine and the great amount of care and attention required in surgical operations on the intestine, the cure imperceptibly effected by natural processes in this case is remarkable.

Indore, Central India.

NOTE ON THE INTERNAL ADMINISTRATION OF FORMALIN IN CASES OF PUERPERAL FEVER.

By CHARLES STEELE, M.D. DURH., F.R.C.S. ENG.

SOME time ago I saw a note of seven cases of puerperal fever having been treated by hypodermic injections of formalin with remarkable and rapid recoveries. I decided to try the method in any suitable case, but as I saw no detailed statement on the subject in the medical journals I was careful to use the drug only in small doses. The following are the results.

CASE 1.—The patient, the mother of three children, a delicate woman and very susceptible to the influence of drugs, miscarried on Feb. 4th, 1903, being in fair health at the time and only six months pregnant. The conjectures offered to me as to the cause of this occurrence at such an unusual period did not satisfy me; with this exception, that she had slipped off her chair and suddenly bent forwards a few days before it took place. She did well for a week and then had a rigor followed by a temperature of 102° F., slight odour in the lochia, and pain in her uterus. I prescribed one minim each of formalin and tincture of aconite in an ounce of water, every hour at first, gradually lengthening the intervals as improvement took place. She liked to take this medicine as it gave a comfortable, warm sensation in her stomach, spreading through the abdomen and the system and induced a cheerful feeling of its "doing good." The above-mentioned attack I gathered to be due to undue exposure when attending to the needs of the system. Steady progress took place; a slight relapse occurred after two weeks but soon yielded to treatment. Weakness was felt for altogether five weeks but

complete recovery took place. She was reluctant to give up the formalin on account of the comfort which it induced.

CASE 2.—The patient, who was the mother of a boy, two and a half years old, was confined at full term after four hours of steady labour on May 13th, 1903, and did remarkably well for four days. On the afternoon of the fifth day her husband came to tell me that she had a rigor and a temperature of 104° F. and that she looked very ill. I went at once and found the temperature to be 106°, the pulse 120, and the respirations 36. The lochia were normal and lactation was uninterrupted. No cause for the attack could be found. She had an excellent nurse. There were profuse saturating perspiration and severe headache; her lips were blue and on the next day the finger-tips were blue also. Three grains each of antifebrin and antitoxin were administered every hour until the temperature dropped, then these drugs were given less frequently. I also gave one minim of formalin in an ounce of water every half hour at first and then every hour. It should be mentioned that five days after her first confinement she had a slight feverish attack which yielded quickly to a few doses of Dover's powder (five grains) and also that about a year previously she had an extremely prostrating attack of influenza which depressed the action of the heart to an anxious extent, but from which she steadily recovered.

This patient expressed just the same feeling of comfort and warmth in the stomach, spreading through the abdomen and the system and making her feel altogether better, as did the previous patient. There was no cough, bronchitis, pleurisy, or pneumonia, or any other mischief. The urine was condensed for a few days owing to the free perspiration, but it was otherwise normal as were also all the functions, including the nursing of the child, which was carried on without injury to herself or the baby. She is now (July) perfectly well. On the second day I went prepared to inject antistreptococcic serum, but was thankful to find it unnecessary, as the remedies which I have described had sufficed.

Clifton.

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.

BOLINGBROKE HOSPITAL, WANDSWORTH COMMON.

A CASE OF PERFORATED DUODENAL ULCER; OPERATION;
SUBSEQUENT DEVELOPMENT OF SUBHEPATIC
ABSCESS; RECOVERY.

(Under the care of Mr. HAROLD BURROWS.)

THE patient, a man, aged 24 years, was admitted to the Bolingbroke Hospital on March 4th, 1903, with symptoms of perforative peritonitis. On the previous night at about 11.30 he was playing billiards and as he stooped down to make a stroke he was seized with a sudden severe pain in the right hypochondrium. He felt sick and faint and was given some brandy which neither increased the pain nor made him feel better. Shortly after this the patient began to retch and to vomit, these symptoms, together with severe pain in the abdomen, continuing up to the time of the operation; in fact, the vomiting was so frequent that a diagnosis of intestinal obstruction had been suggested. The patient's last meal before the onset of the attack had been at 6 P.M., five and a half hours previously, and had consisted only of three cracknel biscuits and some tea. He stated that he had always enjoyed good health except for indigestion, from which he had suffered for years. He described it as pain or "a feeling of weight on the stomach" coming on about one and a half hours after a meal and always relieved for a time by taking more food. On examination in the ward the patient was evidently in acute pain. He was lying on his back with the

legs extended; his expression was one of great anxiety and he was hiccupping and frequently retching. The abdomen showed the usual characters of general peritonitis with these special points—viz., the pain and tenderness were most marked in the right hypochondriac region, rigidity of the abdominal muscles was more marked above the umbilicus than below, and the right rectus muscle was distinctly more rigid than the left.

Laparotomy was performed at 2.30 P.M., 15 hours after the onset of acute symptoms. A vertical incision was made through the upper part of the right rectus three-quarters of an inch from the middle line. As soon as the peritoneum was opened odourless gas escaped, together with some fluid which resembled weak tea with milk. On raising up the liver and pressing down the transverse colon a perforation about one-sixth of an inch in diameter was found on the upper surface of the duodenum near the junction of the first and second portions. Biliary material was oozing through the opening. The duodenum and neighbouring parts were coated with plastic lymph. No induration could be felt in the neighbourhood of the ulcer. The peritoneum was taken up at three points beyond the margin of the ulcer by a fine silk ligature and the included area was then inverted and the suture was drawn tight and knotted. Some difficulty was experienced at this stage on account of the awkward position of the ulcer and the constant oozing out of biliary material which prevented a good view of the seat of the lesion. When this had been accomplished the surrounding peritoneum was swabbed dry, an indiarubber drainage-tube with a gauze wick inserted down to the site of the perforation, and the abdominal wound sutured. The patient recovered from the immediate effects of the operation but afterwards developed a subhepatic abscess which was opened and drained through the right loin on April 14th, 41 days after the first operation. After this convalescence was uninterrupted. When last seen, on August 10th, the patient was in good health and stated that he was quite free from pain or discomfort after food.

Remarks by Mr. BURROWS.—The above case is of some interest because comparatively few cases have been recorded where perforation of a duodenal ulcer has given rise to symptoms sufficiently characteristic to allow of a correct diagnosis being made previously to operation or necropsy. In this instance, fortunately, the symptoms both before and after perforation pointed rather definitely to the duodenum as the site of the lesion.

ST. MARY'S HOSPITAL, MANCHESTER.

A CASE OF ECTOPIC GESTATION REMOVED BY ABDOMINAL
SECTION WITH A DERMOID TUMOUR OF THE
EXTREMITY OF THE LEFT TUBE.

(Under the care of Dr. D. LLOYD ROBERTS.)

THE patient was a married woman, aged 29 years, who was admitted into St. Mary's Hospital, Manchester, on April 23rd, 1903. Her menstrual history was as follows. The first menstruation occurred at 12 years of age and the last on Jan. 1st, 1903; it had previously been regular every three weeks; the duration was five days, the amount being small. There had been amenorrhœa for four months. She had had no previous pregnancy. She had had pains in the stomach on and off since the last period. The pains came on very severely on the day of admission; the patient was sick but did not faint. During the last month she had had several attacks of pain and collapse, two of the attacks having occurred within the last four days. On admission the patient was exceedingly blanched; she had much pain, with considerable tenderness. There was an indefinite swelling in the lower part of the abdomen, especially on the right side; dulness was present in both flanks. Per vaginam the vaginal orifice and the walls were normal; the os and the cervix were also normal. There was some bulging in the posterior and right fornices; the uterus was rather heavy. There was a semi-cystic swelling on the right side about as large as an emu's egg.

Operation was performed on April 24th. On opening the abdomen a large quantity of dark-coloured blood escaped which with a considerable amount of laminated clot and a foetus about three inches long were removed. The right tube was then found to be ruptured, with apparently the placenta protruding. The tube and the ovary were removed. Attached to the left tube was found a small rather firm tumour about