costal margin, 3 months after the onset of the disease, though the patient is now completely symptomless and has been so for seven weeks.

We should like to emphasize the association of persistent neutropenia and splenomegaly with infectious mononucleosis.

Medical Memoranda

Paratyphoid Ulcer of Rectum

The following case is noteworthy from the point of view of the differential diagnosis of diseases of the rectum and because of the rarity of its occurrence.

HISTORY OF CASE

On June 27, 1944, a sergeant air gunner, aged 21, was admitted from sick quarters to an R.A.F. hospital as a case of neoplasm of the rectum. On rectal examination the unit medical officer had felt a "mass." The patient gave a history of constipation for 7 days while on leave. On return to his unit he passed blood and mucus per rectum. He did not feel well, but he had no pain. He stated that he had lost weight and that his relatives told him while on leave that he looked much thinner.

On examination the abdomen was slightly distended and resonant. There was no tenderness or rigidity, and the liver and spleen did not appear to be enlarged. Per rectum a friable adherent mass was felt on the left side. The ulcer had a raised irregular edge, and blood was present on the examining finger. No unusual enlargement of inguinal nodes was felt. Heart and lungs were normal. The oral temperature was 100.4° F. and pulse rate 80. Next day proctoscopy revealed an ulcer the size of a half-crown on the left side of the rectum. It was oozing blood. A piece of the wall was excised for examination, but previously a swab of the base of the ulcer was taken for culture. Sigmoidoscopy revealed no other site of ulceration, and merely a congested mucosa.

Further investigations included the following: June 28: haemoglobin, 80%; haematocrit, 44%; W.B.C., 8,200 per c.mm. (neutrophils 60%, lymphocytes 37%, monocytes 3%). June 29: Chest skiagram—"Lung fields clear." June 30: Kahn negative. Also on June 30 the report on the swab of the ulcer was: "Organisms morphologically, culturally, and serologically resembling *B. paratyphosus* B isolated." The result was communicated to Air Commodore Morton, who was examining the biopsy specimen.

The patient was transferred to the medical division, and his further progress was that of a typical case of paratyphoid B infection, with serum agglutinins showing a rising titre of paratyphoid B. He made a good recovery, and on discharge Squad. Ldr. Petch (Medical Specialist) made the following comment: "A case of paratyphoid B presenting with an ulcer in the rectum. He was extremely ill for this infection, but has made a good recovery. Inoculation state as judged by records in pay-book should have afforded protection."

G. GORDON LENNON, M.B., Ch.B.,
Squad. Ldr., R.A.F.V.R.

Foetal Erythroblastosis and Hydrops in Twins

The occurrence of a case of hydrops and erythroblastosis in twins born to a primipara presents some unusual features. Comment on the cause of the condition and the chance of a normal baby in a future pregnancy will be welcomed.

CASE REPORT

Mrs. X., a primipara aged 24—last menstrual period Sept. 23, 1944—when first seen on Jan. 10, 1945, had slight swelling of the right ankle, which she said had been quite common even before pregnancy. She had been treated for a threatened abortion in December, and was considered to be due in May. Her blood pressure was normal at frequent examinations, but the swelling of the right ankle increased. Her Wassermann reaction was negative. In March both legs became swollen, and she complained of giddiness and dyspnoea. B.P. 110/76. A specialist reported her cardiac condition to be normal. There was some hydramnios. In April she was advised to stay in bed. On May 2 she was admitted to the infirmary in labour, with oedema of the legs and feet and albuminuria. B.P. 138/100. After a short labour she was delivered of a male infant, weighing 7 lb. 3 oz., who was grossly oedematous; the heart beat for a few minutes, but he never breathed. The second twin—a male weighing 3 lb. 10 oz.—was delivered 20 minutes later; he was oedematous over one shoulder and the side of the neck. He lived a few days. A large single oedematous placenta was expelled.

Mrs. X.'s blood count was: Hb, 72%; red cells, 3,752,000 per c.mm.; colour index, 0.96; leucocytes, 10,000 per c.mm. (polymorphs 82%, lymphocytes 16%, eosinophils 2%). The red cells were a little irregular—no reticulocytes. No abnormal white cells were seen. The Wassermann and Kahn reactions were negative. Blood urea: 20 mg. per 100 c.cm. Blood bicarbonate: 61.3 c.cm. CO_2 bound by 100 c.cm. plasma at N.T.P. Blood group: O (IV Moss) Rh-positive. There did not appear to be any irregular agglutinins in her serum.

Mr. X.'s blood group was A (II Moss) Rh-positive. His cells are agglutinated by Mrs. X.'s serum only to a titre of 1 in 32, so that a high anti-A titre is not the explanation of the case. Wassermann and Kahn reactions, negative.

Mrs. X. left the infirmary in 18 days with a normal blood pressure and no oedema. There was a faint trace of albumin in the urine. Urea, 1.03%. No blood pus or casts were found.

Post-mortem Report on Baby X.—There is general oedema of the whole body and serous membranes. Lungs: Complete atelectasis. Heart: The foramen ovale is very large. Liver: Very small and tough, with a large haemangioma on the surface. Spleen, small. Kidneys and suprarenals appear normal.

Report on Sections Taken at Time of Necropsy.—Kidneys absolutely normal, with nothing pathological in them. The suprarenals are also quite normal. The spleen is extremely congested, and there are no lymphoid follicles; it seems to consist entirely of reticulo-endothelial cells, and the vessel walls are very fibrous and thick. The liver is very congested, with a great quantity of blood pigment in it. There is a large amount of round-cell infiltration, and Glisson's capsules are extremely fibrotic, but apart from this there does not seem to be much fibrosis. The lungs show complete atelectasis.

The second baby was sent to a voluntary hospital as it was becoming more oedematous; it died there after a few days. A blood count showed: Hb, 163%; R.B.C., 7,100,000 per c.mm.; colour index, 1.15; leucocytes, 53,400 per c.mm. (polymorphs 20%, lymphocytes 70%, monocytes 10%). Though the stained film showed tremendous numbers of nucleated red cells, while counting a hundred white cells 1,010 nucleated red cells were seen. No necropsy was performed.

My grateful thanks are due to Dr. Mackarell, pathologist, and to Dr. O'Donovan for reports and helpful advice in this case.

Nuneaton. EILEEN MALONE, L.R.C.P.&S.I.

A Case of Volvulus of Small Intestine

The following case may be of interest to readers by reason of its comparative rarity and because of the difficulty of early diagnosis.

CASE NOTES

The patient was an Army officer aged 34. He had had an appendicectomy (two scars), and had suffered from "heartburn" off and on for years. On admission on July 25, 1944, he complained of very severe pain in the mid-abdomen since 1 a.m. and had vomited bile-stained fluid. Pulse 74, temperature normal; rigidity and tenderness of both rectus abdominis muscles, the right more so than the left; no distension apparent. He was very ill and, although he did not present a typical picture of a perforated duodenal ulcer, it was thought wise to "look and see," after consultation with the medical specialist.

Operation (1).—Upper right paramedian incision. Nothing abnormal discovered (no perforated duodenal ulcer and no obstruction; gall-bladder normal). After further intermittent attacks of pain and vomiting bile, he eventually became acutely obstructed and very ill. Enemata yielded no result. Distension very marked.

Operation (2).—Abdomen opened on July 28 by a lower right paramedian incision of ample length. Obstructed distended coils of gut presented, and were traced to the now complete volvulus of small intestine near the base of the mesentery on the right side, by the sacro-iliac synchondrosis. The purple loop was untwisted, and soon recovered its colour and sheen on bathing with hot saline. The abdomen was then closed without drainage.

He was put on the dangerously ill list, with flatus tube and eserine every four hours. On July 31 he was off the "D.I. List"; general condition excellent. On Aug. 2 he could walk round his bed. After an uninterrupted recovery the patient was discharged to sick leave on Aug. 21 in Category "D."

COMMENTARY

The diagnosis of this case in the early stages was difficult. Now that we are "wise after the event," it is fairly obvious that his early signs and symptoms were those of *intermittent partial* obstruction of the small intestine, due to a subacute volvulus. The affected loop was evidently swinging like a ship at anchor, partially folding over and then swinging free again, with temporary remissions of symptoms between July 25, when early laparotomy revealed nothing, and July 28, when a complete torsion of the loop on its mesenteric axis took place, and "stayed put," causing acute obstruction. The customary enormous distension associated with the ordinary volvulus (of the *sigmoid* colon) was absent, as might be expected in this case, where the obstruction was much higher up the tract.

No attempt at fixation to prevent recurrence was made, since all of the expedients recommended are unsatisfactory and ineffectual.

The case is of further interest in that volvulus of the *small* intestine is very uncommon. Tully Vaughan collected 21 cases only; and Rowlands and Turner of Guy's stated in 1937 that "in several cases difficulties were so great and the appearance so puzzling that the operators did not recognize the condition during the operation." J. B. Roberts also refers to two other cases in which the lesion was discovered only at necropsy.

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R. SALISBURY WOODS, M.D., F.R.C.S.,
Late Major, R.A.M.C.; Surgical Specialist, E.A.C.