FIG. 2.—The position of the tender mass in Case 2.

An extremely tender mass was palpable in the right iliac fossa in the position shown in Fig. 2, with no resistance or rigidity or any other abnormality in the rest of the abdomen. Rectal examination revealed nothing abnormal. The chest and cardiovascular systems and the urine were normal. A provisional diagnosis of acute appendicitis was made and operation was performed under general anaesthesia.

The abdomen was opened through a Battle's incision. The mass previously felt externally was found to be an area of considerable thickening and acute inflammation, with oedema and petechial haemorrhages in the posterior wall of the caecum the size of a hen's egg. The area was fairly sharply demarcated from the rest of the bowel. The appendix, which was macroscopically normal apart from a few faecaliths, was removed. There were several firm glands with oedema in the ileo-caecal angle, and one of these was removed for microscopical examination. The abdomen was closed without drainage.

Post-operative Course.—Intramuscular penicillin, 100,000 units four-hourly, was given up to a total dosage of 6,000,000 units. A course of 32 g. of sulphamerazine was also given. On February 18 the white cells numbered 8,400 per c.mm. (polymorphs 75%, lymphocytes 20%, monocytes 4%, eosinophils 1%). On February 23 they numbered 4,000 per c.mm. (polymorphs 60%, lymphocytes 30%, monocytes 3%, eosinophils 7%). Stool examination revealed nothing abnormal.

The patient made an uneventful recovery and the wound healed by first intention. No abnormality was palpable in the abdomen a week after operation, and he was discharged from hospital on March 7.

The pathologist (Dr. W. W. Walther) reported: "The gland shows changes similar to those seen in glands draining areas of established inflammation. There is no evidence of tuberculosis. The appendix shows no evidence of acute inflammation."

The patient has since been seen at intervals, and has remained perfectly well and put on weight; nothing abnormal has been palpable in the abdomen. On April 28, after an opaque meal and follow-through, the radiologist (Dr. P. Tettmar) reported: "Normal stomach and duodenum. The caecum and ascending colon are well filled. No abnormality is seen. Normal rate of passage through the small intestine."

Comment

Two cases of acute phlegmonous caecitis are described. They are essentially similar to those previously reported in the literature as the diffuse and the circumscribed forms.

The condition, though rare, should be borne in mind in the differential diagnosis of acute appendicitis, from which it can be distinguished only by operation. The presence of a well-defined very tender mass in an apparently early case of acute appendicitis should give rise to a suspicion that it may be one of acute phlegmonous caecitis.

In both cases no harm followed appendicectomy and the caecitis resolved rapidly. The masses disappeared rather more quickly than in the cases of Spivack and Busch, probably because of chemotherapy. In the older literature a fatal outcome was recorded in some cases subjected to elaborate procedures such as resection, exteriorization, and lateral anastomosis. On the other hand, some cases recovered after appendicectomy only. Appendicectomy seems to be without special risk in these cases, and removal of the lesion must be regarded as unjustifiable, since resolution may be expected.

No further light is shed on the aetiology of the condition. The theory of abrasion of the mucous membrane, such as by a foreign body, followed by spreading inflammation of the bowel wall seems to be a reasonable one. The condition

is probably essentially similar to the better-known acute phlegmonous gastritis. In this condition, also, radical surgery is no longer recommended (Maingot, 1948), but resolution may be expected with chemotherapy.

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Medical Memoranda

An Unusual Case of Infectious Mononucleosis

The report by Eckstein and Peeney (1949) of a case of rectal haemorrhage associated with infectious mononucleosis prompts me to think that the following case is interesting enough to record. It is a case of infectious mononucleosis which presented with haemoptysis, subconjunctival haemorrhages, severe abdominal pain, and, later, meningitis.

CASE REPORT

A previously healthy male farm-worker aged 17 was admitted to hospital in August of this year; he attributed his illness to a kick on the left side of his chest from a cow one week previously. He had no symptoms immediately following this occurrence, and was able to continue with his work normally. There had been no bruising of the chest wall.

On admission he gave a three-days history of feverishness and shivering attacks. At the onset of fever his legs felt weak and he developed a continuous central abdominal pain, which was sharp in character. One day later he had a slight unproductive cough and a constant severe lower retrosternal discomfort. From then onwards the abdominal pain became worse and was accompanied by vomiting. On the evening of admission he started to cough up blood, and at the same time his family noticed he had "red eyes." This was exactly seven days after his encounter with the cow. There was no past or family history of undue bleeding episodes.

On examination he was ill and apprehensive, though well built. The temperature was 103° F. (39.4° C.), pulse 120, and respirations 44 a minute. The tongue was furred and the fauces appeared normal. There was no anaemia, purpura, or icterus, and no glands were palpable. He was coughing up blood-stained sputum, and had bilateral subconjunctival haemorrhages covering the whole of each sclera.

He was afraid to move because of pain, and it was difficult to gauge whether it was the pain in the chest or in the abdomen that was the worst. However, there were no physical signs in the chest apart from the rapid respiration rate. The abdomen was held tight, and there was generalized guarding, with complaints of pain on palpation, particularly suprapubically. It was impossible to feel the spleen, but there was resonance over the left costal margin. Bowel sounds were present, and rectal examination was negative. There were no signs in the nervous and cardiovascular systems, and the blood pressure was 115/65 mm. Hg. The urine contained no albumin or sugar.

The chest was normal on radiography, and there were no fractured ribs. The haemoglobin was 95% (13.15 g. per 100 ml.), platelets 150,000 per c.mm., and white cells 13,500 per c.mm. (polymorphs 77%, lymphocytes 16%, and monocytes 7%). The blood urea was 70 mg. per 100 ml. The sputum, which was heavily blood-stained, contained no acid-fast bacilli.

Forty-eight hours after admission he was still very ill. The temperature was 100° F. (37.8° C.), and it was noted that the pulse was in the sixties. The vomiting was persistent, and he now had severe headache with neck stiffness. Lumbar puncture revealed opalescent fluid under increased pressure, containing 45 mg. of protein per 100 ml., a trace of globulin, and 102 cells per c.mm. Of these cells 60% were polymorphs and 40% lymphocytes. The chloride and sugar content was normal and the culture was sterile. Some small glands were palpable in the neck, axillae, and groins. A Paul-Bunnell heterophil antibody reaction showed agglutination at a dilution of 1 in 448. The spleen was never palpable and he developed no rash.

From this point onwards the patient improved. The headache and vomiting gradually eased up, and the abdominal pain and guarding subsided. He no longer coughed up blood. White blood counts after the initial one showed no abnormality or changes of glandular fever, but the heterophil antibody reaction revealed agglutination at a dilution of 1 in 896 a week after the first test. Lumbar puncture showed a gradual improvement, and the cells became practically all lymphocytes.

The patient made an uneventful recovery and was discharged from hospital three weeks after admission. He has reported again since, and is remarkably fit, with no abnormal signs.

COMMENT

On admission the case presented difficult problems. Not least was the history of a kick on the ribs a week previously. It seemed difficult to account for haemoptysis resulting after seven days from a kick that had caused no bruising of the skin, permitted him to continue normal work, and produced no fractured ribs or radiographic changes in the lungs. Similarly, it was difficult to explain the subconjunctival haemorrhages, particularly as his cough was mild and there had been no intense paroxysms of coughing before admission. The coincidence of the onset of meningeal signs with the development of superficial glandular enlargement prompted us to carry out a Paul-Bunnell test.

As to the mechanism of the various presenting symptoms, we can do no more than theorize. Pfeiffer (1889) in his original description recorded a slight irritating cough and pain in the lower abdomen in the majority of cases. The latter pain, in his experience, was nearly always felt midway between the umbilicus and the symphysis pubis. He suggested that swelling of the retrotracheal, retrooesophageal, and mesenteric lymph glands was responsible.

Eckstein and Peeney have already referred to haemorrhagic manifestations as being among the rarer complications of infectious mononucleosis, and in their own case they demonstrated active bleeding from the mucous membrane of the bowel without any obvious cause.

It might be that this tendency to bleed accounted for the subconjunctival haemorrhages, the haemoptyses, and possibly the abdominal pain in the case here described, either of its own accord or in conjunction with glandular enlargement as envisaged by Pfeiffer.

The meningeal complications have already been described by Thelander and Shaw (1941).

I wish to express my thanks to Dr. T. H. G. Shore, consultant physician, for permission to publish this case.

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Anginose Type of Glandular Fever Requiring Tracheotomy

Serious complications in the course of monocyctic angina are uncommon. Tidy (1937), in an exhaustive review, states that "bronchopneumonia has caused one or two fatalities, but, apart from this, recovery is complete." Although Johnson (1944) described a severe case of anginose type in a 10-year-old negro boy, when "tracheotomy seemed almost necessary at times," a number of clinical accounts do not mention a case severe enough to warrant the operation (Fuller, 1941; Barber, 1941; Stevenson and Gow Brown, 1943; Smith and Shaw, 1945).

CASE REPORT

Three weeks before admission to this hospital the patient, an agricultural student aged 22, had noticed a swelling of his neck, and at that time he had an enlargement of both tonsils, with pyrexia. Throat swabs were negative for diphtheria, and he was given a short course of sulphonamides. He did not improve, and he was admitted to an isolation hospital, where he received 12,000 units of diphtheria antitoxin on his first day, and 2,000,000 units of penicillin during the following week. His temperature remained up continuously, and although the faucial swelling was incised under local analgesia no pus was obtained. He became more dyspnoeic, and was transferred to this hospital with the diagnosis of acute leukaemia.

On admission on December 13, 1948, he had considerable oedema of the throat but no membrane formation or ulceration. Numerous glands in the cervical chain were enlarged and tender, but he had no general lymphadenopathy and his spleen was not palpable. He was very dyspnoeic and distressed, but not cyanosed.

The pathologist reported that the blood film was typical of glandular fever, with 79% mononuclear cells out of a total of 14,600 white cells. He was given N.A.B., 0.3 g., intravenously and three-hourly penicillin, with continuous intranasal oxygen, but in spite of this his condition deteriorated, and in the evening of the day of admission the necessity for tracheotomy was carefully considered in consultation with the laryngologist. We then decided against the operation, but during the night his condition became so grave that we felt it necessary to relieve his respiratory distress. At 5 a.m. on the following day tracheotomy was performed by Mr. John Roberts under local analgesia. The patient's condition improved immediately and his dyspnoea and distress rapidly lessened.

Three days after admission the Paul-Bunnell reaction was positive 1 in 2,224 (and to the same dilution after absorption). When repeated 10 days later this was positive at 1 in 256.

Four days after admission his blood count still showed an increase in mononuclear cells (75% of a total of 8,000 white cells). The blood Wassermann reaction and Kahn test were negative.

The tracheotomy tube was removed seven days after the operation and the wound healed satisfactorily. On December 29 (15 days after admission) the patient became unduly drowsy, and during that night he was restless and confused. The next day he became delirious, but, apart from a positive Kernig sign and mild neck rigidity, no localizing signs were found on examination of the central nervous system. Lumbar puncture was performed and the fluid was not under pressure; the cells were increased to 28 lymphocytes per c.mm., protein 70 mg. per 100 ml. (with increase of globulin), and chlorides 660 mg. per 100 ml.

This confusion and restlessness continued for some days, and later his general demeanour became vague and distant, with retardation of thought. These symptoms were transient, and a month later he had completely recovered. He was discharged on January 26, and when reviewed three months later was free from symptoms.