Pulse Rate.—All cases suspected of internal injuries are put on to half-hourly pulse charts as a matter of routine. A rising pulse rate which cannot be accounted for by external haemorrhage or by intrathoracic injuries should call urgent attention to the abdomen. A rising pulse rate alone is not an indication for laparotomy but for a careful general examination. In injured children the pulse rate often rises to 130 or 140 for no demonstrable reason, and, though it requires considerable restraint to hold one's hand, an hour or so may be safely spent in watchful anticipation. As characteristic of peritonitis this sign comes on late, and every effort should be made to diagnose without its aid.

Liver Dullness.—Loss of liver dullness often implies that free gas has become interposed between the liver and the parietes. It also is a late sign and should not be awaited. If the abdomen is distended this sign is not significant, but in the absence of distension or when combined with other signs it becomes important.

Leucocytosis.—The most bizarre counts may be found. Some cases with counts up to 30,000 white cells per c.mm. have shown no perforation and have cleared up on conservative expectant treatment, while others with equally large counts have required suture of ruptured viscera. Similar experiences can be recalled in the presence of normal and low blood counts. This investigation is often not available, and is usually not helpful.

Radiography.—When the primary shock has passed off it is the easiest thing to sit the patient up in bed and, after slipping a loaded cassette behind his back, to take a radiograph of the upper abdomen in the erect position. Pneumoperitoneum as indicated by fluid levels under either or both domes of the diaphragm is pathognomonic of free gas in the abdomen and is a simple, safe, and positive indication for laparotomy. The finding is of great positive value, but if negative it does not rule out haemoperitoneum, a ruptured bladder, or a small tear in the alimentary canal.

And, finally, if there is still doubt after one examination, re-examination an hour later has been found to be of the greatest value. Progressive tenderness or progressive rigidity is especially looked for, and a reassessment of the whole condition can then be made without the loss of too much valuable time. A comparison with the earlier examination will usually lead to a certain diagnosis.

Summary

The classical signs of ruptured viscera are considered.

The finding of tenderness and, more important, of rigidity at any part of the abdomen remote from the site of primary injury is considered to be the surest indication for laparotomy.

X-ray findings, if positive, can clinch the diagnosis.

The value of re-examination one hour later in doubtful cases is stressed.

REFERENCE

Massie, G. (1923). *Lancet*, 2, 643.

At the annual general meeting of the Society for Relief of Widows and Orphans of Medical Men, with Mr. V. Warren Low in the chair, the report and accounts for 1941 were presented and adopted. Sixty-three widows and two orphans received grants during the year, and £4,371 was distributed among them, each widow over 65 years of age receiving £75 and those under 65 £60, and each orphan received at the rate of £50 per annum. Relief is granted only to the widows or orphans of deceased members. Membership of the society is open to any medical man who at the time of his election is residing within a 20-mile radius of Charing Cross. Election is by ballot. The invested funds of the society amount to £139,000. Capital may never be sold and used as income. Full particulars may be obtained from the secretary, at the offices, 11, Chandos Street, Cavendish Square, W.1. Since the foundation of the society, in 1788, there have been six secretaries only. The first held office for 27 years and the fifth for 37 years; the sixth, Mr. Edward J. Blackett, has so far held office for 37 years.

Medical Memoranda

Chronic Headache caused by "Silent" Sinusitis

Usually we take very little notice of a headache. It may be due to a cold, influenza, or some other upset, and we know that when the cause disappears so will the headache. When no cause can be found, and yet the headache persists, constant or intermittent, severe or mild, month after month, year after year, then it becomes an unmitigated nuisance and a hindrance to life. Remedies and suggested causes fill the pages of our textbooks, and advertisements of quack remedies abound—sure signs that none can be relied on. Two cases of this nature are reported to show how easily the actual cause of the headache may be missed and the patient thus condemned to long years of helpless misery.

Case 1.—A spinster aged 59 had suffered from constant severe headache for 7 years. At times she had taken as much as 90 grains of aspirin in a day. Since there seemed to be no hope of relief her friends began to fear suicide. Sinusitis had been suspected, and she had been examined by three rhinologists, who were all agreed that there were no clinical signs. The first supported his opinion by radiographs; the second, after washing out the nasal cavities and examining the secretion microscopically, was emphatic that there was no infection. Nevertheless, the fact that the patient had post-nasal catarrh, together with marked contraction of her fields of vision, convinced me that there was sinusitis, and when at my request the third rhinologist opened the left antrum the disease was seen. A week after the antrostomy there was a sudden profuse flow of blood and mucus from the left nostril, and the pain at the vertex ceased. A year later she wrote: "I have practically given up aspirin, my head is so much better."

Case 2.—An unmarried woman aged 39, first seen in 1930, had had severe headaches from childhood. They were often quite incapacitating, and latterly had occurred daily. In the hope of relief all her teeth had been removed, her tonsils enucleated, and her septum straightened. When these measures failed no further suggestion could be made by rhinologist, ophthalmologist, or neurologist, and the patient and her doctor were in despair. Clinical signs of sinusitis were entirely absent even during the septum operation, and the x-ray report was negative. There had never been any catarrh. Nevertheless, the extreme contraction of her fields of vision led me to diagnose sinusitis as a cause of her headaches. Conservative treatment by nasal medication resulted in considerable nasal discharge and prompt relief of the headache. A year later she had "the best holiday of her life" and could "eat anything and go anywhere" without provoking the headache which formerly followed any indiscretion. In 1941, eleven years later, the patient reported again, well and happy, with only occasional moderate headache. (A fuller account of this case is given in *Proc. roy. Soc. Med.*, 1931, 24, 891, in which the fields before and after nasal drainage are reproduced.)

These two cases are merely outstanding examples of scores of others in which the existence of sinusitis has remained unsuspected as the cause of headache for many years, sometimes for a lifetime. The hidden nature of the cause suggests an explanation for the frequency of cases of unrelieved headache and of "migraine." When it is realized that though there may be nothing to be seen in the nose or in radiographs of the sinuses we can detect the activities of the hidden oedema around the inflamed sinuses by the fields of vision, these sufferers, hopelessly imprisoned by their own hidden sepsis, can be set free.

LonCon, W.

ROSA FORD, M.B.

Sudden Death from Lipoid Pneumonia

The following case seems worthy of record not only because it presents some unusual features in a comparatively rare condition but also because it points a moral.

CASE HISTORY

A patient of mine, a gardener aged 70, died suddenly, and I was instructed by the coroner to make a post-mortem examination. Twenty years previously the man had had a carcinoma of the left side of the tongue, removed by Mr. (now Rear-Admiral) G. Gordon-Taylor. After a preliminary gastrostomy an extensive operation was performed, which included removal of half the tongue, with part of the lower jaw, and a clearance of the lymphatic tissues in the left side of the neck. The gastro-

stomy was later closed, and he was able to carry on useful work as a gardener right up to the time of his death. On the morning of the day he died he went out to feed his fowls before breakfast, and as he did not return to his meal his wife sought him, and found him dead in the lavatory.

At the necropsy I could discover no evidence of any recurrence of the disease in his mouth or neck, and the old gastrostomy was soundly healed. On opening the thorax I found the mediastinum displaced over to the right side. There were dense pleural adhesions on both sides of the chest, and the right lung was almost completely collapsed. In the lower lobe of the left lung, and firmly adherent to the diaphragm below, was a hard mass, roughly pyramidal in shape, and extending up towards the hilum. It measured approximately 2 in. in each dimension. To the naked eye it resembled a neoplasm, but as I had some doubt as to its nature I sent a portion to a pathologist for section. The mediastinal lymph nodes were hard and fibrous, and the only other pathological findings were a few plaques of atheroma in the aorta.

Section of the tissue sent to the laboratory showed the case to be one of lipoid pneumonia, with very marked reticular fibrosis and numerous large vacuoles surrounded by giant cells. On further inquiry I found that the patient had indeed complained to his wife for some time of increasing dyspnoea on exertion, but had not consulted me about it, though I had been seeing him during the winter to issue certificates for milk and eggs. He had also been in the habit of taking liquid paraffin as a laxative.

COMMENTARY

Lipoid pneumonia was first described by G. F. Laughlin in 1925. Most of the early cases occurred in debilitated children whose powers of deglutition were impaired or whose cough reflex was ineffective. In later years a greater number of cases have been reported in adults, though they have been more often demonstrated at necropsy than diagnosed during life. A large proportion of these cases occurred in patients whose deglutition was affected either by carcinoma of the mouth or throat or by some nervous disease (Freiman *et al.*, 1940). Brown and Biskind (1941) have stressed the occasional resemblance between lipoid pneumonia and carcinoma of the lung, as in this case, though other cases may resemble a low-grade pneumonia (Proper, 1940). Unusual features of the case were the pleural adhesions and the collapsed right lung. Pleurisy is said to be a very rare complication.

The American Medical Association has already drawn attention to the dangers of oily nasal sprays, and I now feel that a warning should be given against the indiscriminate use of paraffin as a laxative by patients with affections of the mouth and throat.

Wivenhoe, Essex.

WALTER RADCLIFFE, M.B., B.Chir.

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Meningococcal Septicaemia resembling Malaria

Meningococcal septicaemia usually presents a fever remarkable in its irregularity, variability, and duration, and seldom exhibits the regular periodicity shown in the accompanying temperature chart.

CASE REPORT

I saw the patient, a soldier aged 26 who had never served abroad, on Jan. 17, 1942. He had been quite well until Nov. 2, 1941, when he suddenly became ill with pains in the legs, arms, and shoulders, with high fever. The fever continued for a week, and he was treated at his regimental medical post. Afterwards he went on leave, during which he had occasional attacks of fever. Some 6 weeks later, on Dec. 13, he was admitted to hospital, where he continued to have periodic attacks of fever, each of which lasted 12 to 24 hours. Simultaneously with the attacks he had headache, rigor, and sweating, and complained of some pain over the splenic region, but was quite well in between the attacks. On Dec. 27 and Jan. 6 some scattered erythematous spots were seen on the abdomen, and also some tender spots resembling erythema nodosum appeared on the legs. Two attempts to recover meningococci from the blood proved unsuccessful, and blood films were examined for malarial parasites with negative results. Blood counts showed a leucocytosis up to 22,000 per c.mm., with a polymorphonuclear increase during the attacks, but in the interval the leucocytes

fell to 8,200 per c.mm. The blood sedimentation rate was 48 mm.; urine and stools showed no abnormality; and the Kahn test was negative. The pulse rate rose during the attacks but never exceeded 104, and the respirations remained at about 20 a minute throughout.

On Jan. 1 a course of quinine bihydrochloride was started, but there was no effect on the recurrence or periodicity of the fever. On Jan. 16 sulphapyridine was given in doses of 2 g. four-hourly, and continued for one week in diminishing dosage, making a total of 22 g. The effect was dramatic, for the fever did not recur and the patient's convalescence was rapid

and uninterrupted. No other cases of meningococcal infection were reported from this man's unit. The resemblance of the fever to quartan malaria is close, for it started first as a continuous form of fever and then settled down to a regular quartan periodicity (except for one period from Dec. 20 to 24), with rigor and sweats throughout.

Meningococcal septicaemia is far from uncommon, being one of the causes of a prolonged irregular fever that is apt to be overlooked, and there is much truth in the saying, "When you see erythema nodosum, think of meningococcal septicaemia."

This case shows that sulphapyridine is as specific for meningococcal septicaemia as quinine is for malaria or antimony for leishmaniasis.

I should like to express my thanks to Major-Gen. G. A. Blake, D.D.M.S., Western Command, for permission to submit this note for publication, and to Lieut.-Col. J. C. Hunt, R.A.M.C., for his kindness in giving me the clinical notes.

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The following medical promotions in and appointments to the Order of the Hospital of St. John of Jerusalem were announced in the *London Gazette* of June 23. As Knights: Col. Sir Richard Needham, C.I.E., D.S.O., M.D., F.R.C.S., Capt. R. J. Isaac, L.R.C.P.&S.Ed. As Commanders: Capt. H. F. Powell, M.B.E., M.D., Lieut.-General Alexander Hood, C.B., C.B.E., M.D., Lieut.-General W. H. Hamilton, C.B., C.I.E., C.B.E., D.S.O., F.R.C.S. As Officers: Dr. C. C. H. Binns, Lieut.-Col. C. H. James, C.I.E., F.R.C.S., Dr. A. M. Barford, Major G. F. P. Gibbons, O.B.E., M.B., Mr. J. R. M. Whigham, M.C., F.R.C.S., Dr. W. P. Kennedy, Surg. Cmdr. J. A. Watson, L.M.S.S.A., Mr. H. R. Rishworth, O.B.E., F.R.C.S. As Serving Brothers: Dr. R. MacLeod, Capt. R. S. Harper, M.R.C.S., L.R.C.P., R.A.M.C., Dr. F. C. Mann, Dr. E. H. Shaw, Dr. W. F. Mason, Dr. M. W. Sellars, Capt. B. Singh, I.M.S., Dr. W. Fraser, Dr. R. Dick, Dr. W. Bain, Dr. S. K. Poole, Dr. P. B. Wood, Dr. E. P. Coyne, Dr. T. B. Gilchrist, Dr. J. Kirkwood, Dr. F. S. Hone, Capt. G. B. Thomas, F.R.C.S., I.M.S. As Associate Serving Brother: Said Abdul Rahim Dabbagh, M.D. Beirut.