A DIFFICULT DIAGNOSIS IN AN INSANE PERSON.

By ROBERT JONES, M.D.LOND., B.S., F.R.C.S.ENG.,
F.R.C.P.LOND.,

RESIDENT PHYSICIAN AND SUPERINTENDENT, LONDON COUNTY
ASYLUM, CLAYBURY; LECTURER ON PSYCHOLOGICAL
MEDICINE, ST. BARTHOLOMEW'S HOSPITAL,
LONDON.

It is always a difficult matter in the insane to obtain reliable, even if any, subjective symptoms of diseases, and the diagnosis of abdominal complaints among this class becomes a matter of considerable uncertainty as well as of anxiety. The following case will illustrate my statement:

A male patient, aged 48, blind from double cataract since an early age, 5 ft. 8 in. in height, 11 st. 7 lb. in weight on admission, was under continuous treatment in the Claybury Asylum for about sixteen years, suffering from maniacal excitement with delusions of persecution, and being also a case of congenital weak-mindedness.

He was taken ill somewhat suddenly and abruptly on May 21st last, and died on May 23rd—that is, in less than three days. The family history records eccentricity and nervousness amounting to actual insanity, although the father was a man of distinction, having attained the position of surgeon-general in the British army. There is no inheritance recorded of abnormal bodily states.

For the past few months the patient had been slowly losing flesh, 2 st. between January and April, but no organic condition was discovered to account for this. His first symptom, which came on rather abruptly, was the complaint of a vague pain "under the ribs," amounting, on pressure with the fingers, to severe abdominal tenderness, especially so under the costal arch of both sides. On palpation there was marked rigidity of the left rectus abdominis.

On May 21st he was carried from his ward into the infirmary upon a stretcher; his pulse was 112 and feeble; he perspired freely, vomited some altered food, and was in a somewhat collapsed state, appearing to suffer much pain. Hot water bottles were placed in his bed and turpentine stupes applied to the abdomen; also, as the patient refused a soap and water enema, a calomel tabloid of 5 grains was given, but no action of the bowels followed then or afterwards. He passed a restless night, and the next day, as far as could be ascertained, he appeared to be in continuous pain.

On further examination on this day (May 22nd), there was marked tenderness over the region of the appendix vermiformis, especially at the base of the appendix (McBurney's spot). The constipation and pain continued, and although there was no fever it occurred to me that the case might be an appendicitis. I have known intussusception—presumably from irregular peristalsis in a section of paralysed gut—to occur in the insane, but as no definite swelling could be made out this was excluded from the diagnosis. Later in the day the patient brought up some foul dark "coffee grounds" matter which appeared to be faecal. Its reaction was not taken. When questioned he continued to complain vaguely of pain on the left side of the abdomen, afterwards on the right side, and later still in the pit of the stomach, which gave us no definite clue. There was rigidity present on both sides, and the abdomen did not move during respiration. The pulse was 132.

Suspicion of obstruction (and I think the symptoms, such as they are, point to this as the most likely conclusion) from internal strangulation were then aroused—I have seen local paralysis of parts of the intestine in the insane give rise to symptoms of obstruction—and the cause was sought in some possible adhesion from bands or possibly a malignant stricture about the pylorus, but no definite hardness could be felt, although the examination of a resistive patient unable to give information was necessarily unsatisfactory as to this. Both pain and tenderness seemed at times to be referred chiefly to the left side, and, as stated at first, the left rectus was felt to be the more rigid. A volvulus of the sigmoid flexure on its own mesenteric axis—or even of the caecum—was then suspected. I had previously had experience of three cases of volvulus of the sigmoid flexure in the insane—one was operated upon and recovered, the other two were not and died. In the present case the constipation continued, but a soap and water enema administered the second day, much against the patient's will, returned without effect almost as soon as given.

During the second night the patient was very restless, refusing all medicines—an opiate had been prescribed. He resented being touched, and threw his hot-water bottles out of bed and angrily cast off his fomentations. He drank a little milk and some tepid water.

The next day, the third and his last, the sickness ceased, but continuous hiccough came on; the pain was more marked and some tympanitis occurred, possibly due to decomposing faeces or to the extravasation of septic material into the peritoneum, and although the pleural cavity seemed to be unaffected, the lungs being clear and there being no empyema or pneumothorax and no abscess pointing, and although also there were no rigors and no elevation of temperature (it only reached 99° this last evening), a subphrenic abscess, either retroperitoneal or intraperitoneal crossed my mind, caused perhaps by the extension of some infectious material through a perforated chronic ulcer (on the anterior or posterior wall) of the stomach. Although Fenwick states that 80 per cent. of all subphrenic abscesses are due to perforated gastric or duodenal ulcer, my only previous experience was in the case of a young nurse who was operated upon for a perforated gastric ulcer and died. I consider that the age of my patient, as well as his sex, were against a subphrenic abscess connected with a perforated acute gastric ulcer, but Krause states that duodenal ulcers are seven times more common in males. Moreover, a subphrenic abscess due to a gastric ulcer is limited above—when on the anterior surface of the stomach—by the diaphragm and left lobe of the liver, and does not encroach, as did this case, on the right side beyond the falciform ligament, adhesions forming between the stomach (or omentum) and the anterior abdominal wall, but the seat of pain seemed to be against the view of a gastric ulcer. In ulceration of the duodenum or of the posterior wall of the stomach the lesser sac of the omentum may become filled with pus, which may work its way into the retroperitoneal tissue, tearing up the solar plexus, and so (as in this case) causing hiccough and vomiting. It was quite possible from the appendicular pain that a subphrenic abscess may even have been set up by the appendix trouble, but we found no special indication of this from the vague symptoms presented.

The patient gradually became weaker and sank into a condition of semi-consciousness for several hours; the respirations, which were entirely thoracic, became shallower, the pulse more rapid—nearly 140—and feeble, hardly to be felt at the wrist, and the patient passed away on the third evening. I naturally viewed the prognosis as most grave—and in this my colleagues, the assistant medical officers, agreed—yet for several reasons beyond those already advanced, and which I need not here indicate, we deemed it inadvisable to operate. Had the diagnosis been more clearly made out, it is possible that an early abdominal operation might have saved his life.

Post-mortem Examination.

The only interest for present purposes was within the abdomen. When the abdomen was opened there was general peritonitis, and there were recent adhesions along coils of intestine, especially in the situation of the vermiform appendix, which was inflamed and swollen, although free. There were flakes of lymph in the pelvis, whilst in local cups or depressions there was dark yellowish fluid free. At the splenic flexure of the colon there was a constriction, but no obstruction, and the descending colon and sigmoid flexure were contracted and empty, but the ascending and transverse colon distended and tympanitic, showing that there had been irregular contraction and dilatation of this part of the intestinal wall, indicating local paralysis and "pseudo-obstruction."

On the under surface of the right lobe of the liver were adhesions—some old and firm, others recent—and within a cavity thus formed by adhesions was a collection of dark clotted blood, amounting to about 4 oz. Blood and fluid appeared to extend into the retroperitoneal structures, and the lesser sac of the omentum contained the same kind of fluid that was seen in the general peritoneal cavity. There was no pus. The posterior wall of the "blood-clot" cavity was formed of the duodenum with its perforated ulcer, the pyloric end of the stomach, and the head of the pancreas. On cutting into the duodenum two ulcers were seen about an inch from the pylorus on the anterior surface and in the first portion of the duodenum; one ulcer was about the size of a sixpence vertically above and close to another the size of a threepenny piece. The larger had perforated right through the three coats of the duodenum; the smaller one had not yet eroded into the peritoneal covering. Both had markedly thickened, but

abrupt and rather clean-cut edges, and were evidently of a chronic nature, although no stenosis of the duodenum was noted.

It is stated that one-fifth of all cases of duodenal ulcers are latent, and it is also stated that melaena in such cases appears before the haematemesis; but there was no melaena in this case; that in duodenal ulcers the localized pain is deeper and more towards the right side than is the case with gastric ulcers, and that in such cases pain is not infrequently associated with the right iliac fossa. Further, it is stated that the gastric juice is alkaline, that it digests fibrine and contains bile when there is sickness accompanying a duodenal ulcer, and, as occurred in this case, there is persistent emaciation; but loss of weight is a condition which is not infrequently associated with insanity apart from a duodenal ulcer. Some authorities have stated that when vomiting occurs after a perforated duodenal ulcer it is continuous, and not a single occurrence as it was to some extent in this case and as is usual after a gastric ulcer. There were no definite dyspeptic symptoms in this case apart from infrequent attacks of sickness, which were relieved from time to time by the ordinary treatment of constipation.

I have brought this case into prominence to show the difficulties there are in the treatment of the insane on lines adopted for the sane, owing to the extreme uncertainty there must be in arriving at a true diagnosis, from the absence of the usual subjective symptoms. Some have described the treatment of the insane to be as difficult a task in clinical medicine as can be set before any physician or surgeon. I venture to think the above case supports this view.

The above account has been submitted to Mr. W. McAdam Eccles, surgeon to St. Bartholomew's Hospital, who writes: "I am a little doubtful, even if the abdomen had been opened in the early stages of the disease, whether his life could have been saved, and I think the case shows very significantly the difficulty of diagnosis and treatment in insane patients."

THE TREATMENT OF CONGENITAL SYPHILIS BY SALVARSAN.

BY

J. W. SIMPSON, M.D., F.R.C.P.E.,

ASSISTANT PHYSICIAN, SICK CHILDREN'S HOSPITAL, EDINBURGH,
AND

LEWIS THATCHER, M.D., M.R.C.P.E.,

UNIVERSITY TUTOR IN CLINICAL MEDICINE, EDINBURGH.

This paper is based on the results obtained in 40 children with congenital syphilis, varying in age from 1 month to 11 years. The cases were not specially selected in any way, but were taken as they appeared in the out-patient department of the Children's Hospital. When there was any doubt as to the true nature of the case the diagnosis was always established by obtaining a positive Wassermann reaction.

The treatment of congenital syphilis by mercury has in the past met with fairly good results, but, in out-patient practice especially, it has two rather serious drawbacks. These are (a) the great difficulty there is in keeping the child under its influence for a sufficiently long period, as the parents, on the slightest improvement taking place, often neglect to bring the child back for further treatment; and (b) the frequent recurrence of symptoms, even after prolonged mercurial treatment; also the possibility of the disease reasserting itself in later life, with the usual symptoms of late hereditary syphilis. Salvarsan has proved so successful in acquired syphilis that it is obviously desirable to give it a thorough trial in the congenital form of the disease. We hope to show in this paper that it can be given with reasonable safety and with great advantage in most cases.

Two methods of using salvarsan have been recommended:

1. *Indirect*, by injecting the mother before her confinement, or during lactation, so that the child may receive the preparation through the milk.
2. *Direct*, by injection of the child itself.

We have no personal experience of the first method. Fabre and Bourret, however, concluded that it is rarely advisable as a prophylactic means on behalf of the fetus, where the mother shows no actual symptoms of the disease, mercury here being quite efficacious. Should the mother, however, become primarily affected during pregnancy, or begin to exhibit secondary symptoms of the disease at this time, the use of salvarsan is urgently called for, as it is of vital importance to get the mother under the influence of an antisyphilitic remedy at once, before the fetus has had time to become seriously affected. In all such cases concurrent treatment with mercury is essential.

Jeanselme has noted sixteen cases where the mother's milk has been used as the medium; he concludes that, although this method occasionally causes a rapid disappearance of the superficial lesions, recrudescence of symptoms not unfrequently occurs. There is considerable doubt, indeed, as to whether this so-called "salvarsan milk" really contains any arsenic at all, Jesionek being apparently the only observer who has found it, and then only in minute traces. Ehrlich ascribes any benefit which may follow this method to the excretion of antibodies in the milk—these having been set free in the mother by destruction of the spirochaetes—and at best, as he says, the effect on the child is necessarily uncertain. Meirowsky and Hartmann tried the plan of injecting the child with the blood serum of patients treated with salvarsan, but the results were not satisfactory.

The *second* method, therefore—that of injection of the child—seems to be the only one of value, and gradually improving results from its use have been reported. These are largely due to two causes—namely (1) the administration of an approximately correct dose, usually 0.01 gram for every kilo (2½ lb.) of the child's weight; and (2) improved method of injection. This consists in cutting down on the selected vein, laying it bare, opening it, and then inserting the cannula, just as in transfusing. In children under 1 year, and even up to the age of 3 or 4, the best vein to use is the external jugular. The dilated head veins, or the veins of the arm, will be found unsatisfactory for use, as they collapse when their sheath is opened and become very small. In some cases there is a difficulty in getting the cannula even into the relatively large external jugular. After the age of 4 or 5 years the arm veins may be used. In infants it is advisable not only to cut down on, but also to open the vein, as a hypodermic needle is apt to penetrate right through the vessel.

The subcutaneous and intramuscular methods formerly employed often led to an area of necrosis or to an abscess. This caused doubt as to the quantity of the dose actually absorbed, and also severe pain usually followed. It is now generally held that the direct method of injection by salvarsan is the most efficacious, and that it is free from serious danger.

Before detailing cases, personally treated, which have led us to concur in this belief, a word may be said as to the value of the Wassermann reaction in the congenital form of syphilis. The reaction is stated to be almost invariably positive, and although not necessarily so at birth, it is always found so on the first onset of symptoms; the reaction in the later manifestations is also constantly positive. This is confirmed by our experience.

As an index of the efficacy of the treatment, however, the reaction is much less useful, as it has been found to vary from time to time without any indication being given by the patient's "going back" in any way. We have not, therefore, considered it necessary or expedient to have this reaction systematically tested, because that would entail considerable loss of blood to children often wasted and anaemic. The results in the cases of mothers of syphilitic babies are also very instructive. The reaction is always positive within about a year of the child's birth, which proves that the mother of a syphilitic child is herself necessarily syphilitic. In any doubtful cases of congenital syphilis, therefore, we should examine the Wassermann reaction of the mother, instead of that of the child, and if it is negative, we may conclude that the child is free from infection.

Cases Treated by Salvarsan.

During the past twelve months we have treated 40 children suffering from congenital syphilis with salvarsan.