On November 9th another attack of diarrhoea came on, but also soon passed over. On November 14th the fluid had not much increased, and all the symptoms were improved. On November 18th the diarrhoea was repeated, but the fluid had now diminished. The inunction with mercury and belladonna was continued, as well as the extract of malt and cod-liver oil. The child now began to gain flesh, and by January was quite as strong and healthy as before, and in another six months she was strong and plump, above the average child of her age, nor has she had any other serious ailment since then. In two months' time she had been aspirated eleven times and 680 ounces of fluid had been taken from her.

REMARKS BY DR. ROZENZWEIG.—The fluid was of a dense consistence, closely resembling milk in colour and appearance, specific gravity 1022, reaction neutral, of a faintly-sweetish odour. There was no spontaneous coagulation, nor was there any pinkish discoloration, even after an interval of four or five days. With heat a heavy coagulum formed; on the addition of cold nitric acid a white precipitate formed, which, on being heated, changed to yellow. Caustic potash increased the fluidity. Microscopical examination showed finely-granular matrix, with large nucleated cells interspersed, bearing, therefore, on the whole, but slight resemblance to the generally accepted characters of chyle.

The literature of chylous ascitic fluid is scanty. The most complete monograph on the subject is one by Dr. Busey, read before the New York Medical Association, in which he chronicles a series of thirty-three cases, and where the causation is ascribed to (1) an obstruction to the flow of chyle through the lacteals, receptaculum chyli, or thoracic duct, impeding its exit into the left subclavian vein, or retarding the current of blood in that vein, right heart, or lesser circulation; (2) filariæ; (3) tuberculous and puerperal conditions. It does not appear that in all these cases the fluid was taken to be other than chyle, but in the case just recorded the physical characters of the fluid did not correspond to those of chyle. There was no spontaneous coagulation, no pinkish discoloration, and the specific gravity was higher. It is exceedingly difficult to obtain pure chyle, mixed, as it is, with lymph in the thoracic duct and receptaculum, and it has been stated that chyle drawn immediately from the intestine does not coagulate.

The recovery of the child after removal of such an enormous quantity of fluid (680 ozs., or 42½ lbs.—more than double the weight of the child) is an additional argument against the chylous nature of the fluid in the present case. If filariæ had been the cause, one would naturally have expected that at some period or other of the child's illness chyluria would have made its appearance, but such was not the case, and to the best of my knowledge no case of filariæ has yet been recorded in the colony.

Mr. Pearce Gould has recorded a case of hydrocele, in which a clear straw-coloured fluid was withdrawn, and which, at the end of the operation, became thick like pea soup, and on standing separated into a clear lower stratum of greenish-yellow colour, and an upper, opaque, yellow, cream-like layer, consisting of fine fat granules with oil drops. He also mentions a case recorded by Vidal de Cassis of double hydrocele, where the fluid was like milk in appearance; a similar case recorded by Fergusson, in which the fluid, of an alkaline reaction and specific gravity 1019, was shown to be hydrocele fluid with the addition of free fat; and another case recorded by Shattock, in which the milky fluid was attributed to obstruction or rupture, or both, of the lymphatics. M. Letulle² gives a case of milky ascitic fluid, following on an attack of diarrhoea with peritonitis, with *post-mortem* evidences of tubercle, and holds that a chronic inflammatory element is a potential factor in the production of such fluids. Klebs ascribes the production of such milky fluids to fatty degeneration of the endothelium of the tunica in hydrocele. It seems strange that in all these cases no *post-mortem* traces of ruptured lymphatics, thoracic ducts, or receptacula have been discovered, and that in the very disease which claims for its pathology obstructed or ruptured lymphatics—elephantiasis arabum—few, if any, recorded cases are found of milky ascitic fluid.

If, then, an inflammatory element is concerned in the pro-

duction of a white hydrocele fluid, why should not the same obtain in the peritoneal cavity? The difference would only be one of degree. Cannot Mr. Gould's case be taken as a transitional stage between the clear and the milky hydrocele fluid? Peritonitic fluid, like hydrocele fluid, contains a small amount of fat, and although the circumstances under which clear fluid is produced in one instance and a milky fluid in another are undetermined, one might safely attribute the large amount of fat granules in the case just recorded as due to the greatly increased degenerative action in the peritoneum. It is clear from the clinical history, that after a varying period of ill health the child had three distinct peritonitic attacks on June 11th, June 17th, and June 28th, before the last of which fluid was for the first time detected.

REMARKS ON TWO CASES OF INSANITY CAUSED BY INHALATION OF SULPHURETTED HYDROGEN.

By J. WIGLESWORTH, M.D. LOND., M.R.C.P.,
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CASE I.—B. H., aged 30, was admitted into Rainhill Asylum, September 20th, 1888. There was no history of insanity in the family. The patient himself was said never to have had any illness, but he appears to have drunk somewhat. He was a single man and a labourer in some chemical works. On the morning previous to his admission into the asylum he went to his work as usual. About 9 A.M. he was observed to be acting strangely, throwing his arms about wildly and shouting. In addition he lost power over his legs. As he was engaged in an occupation which exposed him to some chemical fumes (probably sulphuretted hydrogen) it was supposed—apparently with very good reason—that he had inhaled the gas. He remained excited and rough all that day, laughing and shouting by turns, and did not appear to recognise his brother. When admitted into the asylum on the following day he was in a very maniacal condition, shouting and throwing himself about, and it took several men to carry him to the ward. He kept throwing his arms about, but was distinctly unsteady on his legs when made to stand. In bed he wriggled about, throwing his head back on the pillow, and waving his right arm round and round. This condition of things lasted for two or three days, when he became more quiet; and he then gradually passed into a taciturn, depressed state, sitting or standing about for hours doing nothing, and never speaking except when addressed. After remaining in this condition for many months he gradually developed delusions of persecution and interference, and became very dangerous, making assaults on those around him. This condition of things lasted for upwards of a year; but during the last few months an improvement has set in, and at the present time, although apparently not altogether free from delusions, these are nevertheless much less prominent; and though still excitable and talkative, he is much more tractable, and is regularly employed at outside labour. It is improbable, however, that he will ever fully recover.

CASE II.—R. H., aged 32, was admitted into Rainhill Asylum on January 27th, 1890. He was a married man with three children, and was employed as an engineman at some chemical works. He had always been healthy and temperate, but shortly before the onset of the mental affection he had had an attack of bronchitis, which kept him at home for about ten days. Whilst at his work a few days after this he accidentally inhaled sulphuretted hydrogen and became "gassed," as it is called at the chemical works. This produced headache, stupor, and prostration, for which he was kept at home for a few days, when he became delirious. He passed rapidly into a very violent excited state, shouting and gesticulating; said he was Jesus Christ, etc.; tried to bury his head in the floor, and to raise his feet above his head. When admitted into the asylum, three days later, he was still very violent and excited, gesticulating and talking incoherently chiefly on religious subjects. He continued in a maniacal condition for two or three weeks, but at the end of a month from admis-

² Rev. de Méd., 1884.

sion he had distinctly improved; he had then become rational and was working fairly well. The improvement continued and he slowly recovered mental vigour, and was discharged recovered on June 27th, just five months after his admission into the asylum.

REMARKS.—I have grouped these two cases together, although it is not quite certain that in the first case the gas which affected the patient was sulphuretted hydrogen, details being wanting as to the exact fumes to which the man had been exposed. That he had inhaled gas of some sort is, however, I think pretty clear from the history, and there can, I think, be little doubt that sulphuretted hydrogen was the agent in question. That it was so in the second case is clearly stated in the history obtained from the patient's friends. There was a good deal of similarity between the two cases as regards the symptoms presented at the onset, there being in both a greater amount of muscular excitement than is usual in ordinary mania, and both men exhibiting a curious tendency to roll the head on the floor or pillow.

Labourers in chemical works are quite familiar with sulphuretted hydrogen gas and its usual effects on the system; for it is not by any means unusual for persons exposed to its fumes to become "gassed," as the saying is—that is, they pass into a condition of insensibility which lasts a variable time, and when coming round they are very often sick and dazed, and have a sense of oppression about the chest, and there is often a good deal of prostration for a day or two afterwards. Sometimes indeed, though very rarely, the insensibility ends in death. It is, however, very unusual for lasting or permanent effects to be produced upon the nervous system such as come under the designation of insanity. Indeed, I am not aware that any such cases have been recorded before. It does not, however, appear to me matter of surprise that such effects should at times occur. That the gas has powerful narcotic properties is evidenced by the rapid insensibility it produces when inhaled in any quantity. Cases have been recorded by Savage and others in which insanity—generally taking the form of mania—has resulted from the inhalation of chloroform, ether, nitrous oxide gas, and other similar agents, and the cases just described as produced by sulphuretted hydrogen, seem quite to fall into line with these.

The effect of all these agents appears to be to paralyse, in the first instance, the highest controlling and co-ordinating plexuses in the brain. If the dose be large or the administration continued, more and more of the cortical centres in a descending series are involved, and insensibility ensues. But when the paralysis is confined to the highest cortical arrangements, the immediate result is not lethargy but excitement, owing to the centres next in series being emancipated from the control of the higher, and hence acting over-vehemently and incoherently. Such, at least, is the explanation which I have to offer of the pathology of these toxic cases, which are hence assimilated to the more ordinary forms of mania which we meet with in practice.

HEPATIC CIRRHOSIS IN CHILDREN.

By STUART TIDEY, M.D. LOND., M.R.C.P.,
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I HAVE read Dr. Jolly's notes of two cases of hepatic cirrhosis with great interest, having recently had a parallel case under my own observation.

A. H., aged 11, was a tall emaciated boy. One brother had died in Australia with what was described as leucocythemia. There had apparently been much abdominal swelling before death, and the symptoms appear to have run much the same course as those developed in the present case. There was no necropsy. Two sisters, aged 18 and 8, and one brother, aged 10, were living and healthy. There was no family history of rickets, syphilis, or scrofula. No history of alcohol. He displayed an inordinate appetite for potatoes. During his illness he drank freely of lemon juice. He was circumcised in December, 1890, for phimosis, which had caused retention of urine. On March 23rd, 1891, the patient's mother stated that recently he had had epistaxis, vomiting, and shivering fits.

The urine contained one-sixth albumen, and gave the reaction for bile pigment. On evaporation concentrically marked spherules and faggot-shaped bundles of crystals appeared. The former, I concluded, were leucin crystals, the latter suggested, but were not, typical tyrosin crystals. He had emaciated greatly since December. There was no fever. The pulse was 100 and weak. There was slight general icterus, but no oedema of extremities nor ascites.

On March 30th the skin was about the colour of a lemon, very dry, and the liver dulness was slightly increased. Two small motions had been

passed since the previous day. The tongue was coated with white fur, the mouth sticky, and there was great thirst but no appetite. The spleen was slightly enlarged. There had been no vomiting for twenty-four hours, and no more epistaxis. He wandered slightly at night. Pulse 92.

On March 31st the urine contained less bile and less albumen, and on April 2nd the urine contained less bile and no albumen. The stools passed were loose and yellowish. The tongue was cleaning, and there was less disinclination for food. The liver dulness extended 5 inches in the nipple line. The icterus was less. There was no headache, nausea, or vomiting, but severe abdominal pain.

On April 5th there was a trace of albumen in the urine, and ascites was detected for the first time. The hepatic dulness had decreased, the splenic increased. He experienced pains and great tenderness in the legs, and especially in the heels, although quite relieved from pressure.

From this time till the occurrence of death, on April 9th, the ascites steadily increased. Diaphoresis produced by the vapour bath and pilocarpin did not relieve the symptoms. Food was refused, or rejected at once when taken. Delirium with hallucinations of sight alternated with intervals of lucidity. The hallucinations consisted chiefly in the appearance of black snakes. There was almost complete suppression of urine during the last forty-eight hours, and a small quantity of mucus was all that was passed by the bowel.

I tapped the abdomen on April 8th, with a view to relieving the oppressed breathing and to promote euthanasia.

The necropsy revealed a typical hob-nailed liver, and the microscopical examination of sections—kindly performed for me by Mr. J. J. Clarke, curator of St. Mary's Hospital Museum—showed the case to be one of typical polylobular cirrhosis. The mesenteric glands and those in the portal fissure were enlarged but neither caseating nor suppurating.

The chief points of interest about the case were the following:

1. The sudden incidence of symptoms pointing to grave functional disease of the liver in a boy who, without being an invalid, had long been ailing and emaciated.
2. The sudden occurrence of ascites without anasarca in a case of apparently non-obstructive jaundice. This feature of the case induced me to alter my diagnosis from that of quasi-acute yellow atrophy of the liver to that of obstructive jaundice due to enlarged glands in the portal fissure. The necropsy showed the jaundice to be due to acute symptoms following on chronic atrophy—that is, on cirrhosis of the liver—and the ascites to be due to enlarged glands in the portal fissure, one enlarged gland in front and one behind the portal vein at the same level effectually obstructing the flow of blood through it.
3. Absence of fever.
4. Absence of apparent cause of the disease and death of brother at the same age with similar symptoms.

LEPROSY IN KASHMIR.

By ERNEST F. NEVE, M.D., F.R.C.S. Ed.

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DURING the past eighteen months 152 lepers have attended the Mission Hospital as out-patients. The following is an analysis of notes taken:

Sex.—Males, 146; females, 6.

Religion.—Mahomedans, 147; Hindus, 5.

Age.....	Under 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	Above 60	Total
No. of patients	1	9	19	40	30	13	6	118

Duration.—Of 139 in whom the duration is noted, 1 had been ill 15 years and 7 for more than 10 years. The average duration was 2½ years. One patient said that he had only been ill for a month.

Diet.—Of 143 cases, 79 had eaten fish either frequently or occasionally, 64 absolutely denied having ever eaten fish. Of 107 cases, 104 had consumed milk or milk products. Of 117, 92 were rice eaters and 78 bread eaters.

Heredity.—Out of 143 cases, there was no hereditary history in 115.

Endemicity.—Six patients out of 143 stated that relatives-at-law were affected, and 47 gave a history of there being other lepers in the district where they lived.

Evidence of Syphilis.—Eighty-seven were interrogated; 16 said they had previously suffered from this disease.

Type of Leprosy.—Out of 149 patients, 53 suffered from simple anæsthetic leprosy. Others were as follows:—Anæsthesia with ulcerations, 36; anæsthesia with tubercles, 27; tubercles alone, 7. The rest were either mixed forms, or presented multiple or isolated but characteristic lesions of skin or bone. In 52 the appearance of the face was characteristic.

These then are the facts. Let us examine them briefly.

1. **Sex.**—The small number of female lepers is interesting—only 4 per cent. The diet and conditions of life must be much the same in both sexes. The women, however, travel less, and are less exposed to vicissitude.