subnormal, she was covered with cold sweat, and almost pulseless. Vomiting had ceased; pain was less. Her mental condition was perfectly clear, and she was able to answer all questions accurately and without hesitation. She was unable to assign any cause for her sudden illness, and was positive that she had never suffered from indigestion or vomiting previously. There was no jaundice. Her bowels had not moved since noon the day before, but up to that time had been regular.

Within two hours of her admission Professors Purser and Ball held a consultation, and decided that her condition was such as to negative operative interference.

She died the following morning at about 6 A.M. Her entire illness had lasted only 42 hours. The *post-mortem* record reads as follows:—"The body was well nourished and fat. The adipose tissue on the abdominal wall was very thick. The great omentum was loaded with fat, and adherent in several places to the pelvic peritoneum. There was slight peritonitis, lymph slightly glueing the coils of small intestine together. The large intestine was intensely injected in places, the descending colon more particularly being, about the splenic flexure, of very dark colour. On its peritoneal surface it showed numerous dark-coloured hæmorrhages. The cæcum and appendix were not involved.

"The chief and most marked focus of inflammation was about the head of the pancreas. The pancreas itself was intensely injected, and enlarged evidently by inflammatory changes. The gall-bladder and common bile-duct contained a large number of whitish faceted gall-stones. One of these was found projecting into the lumen of the duodenum. They were about the size of peas, and contained a dark nucleus.

"The whole gut was distended with gas. There was no perforation or ulceration of the gut, gall-bladder, or ducts, or of the urinary bladder. A very little reddish-coloured fluid was in the peritoneum of the pelvis. The upper surface of the liver only showed signs of old peritonitis. The ovaries and Fallopian tubes were prolapsed into Douglas's pouch; the fimbriated ends of the tubes were closed.

"The rectum opened showed a pucker where an old adhesion had formed between the left Fallopian tube and the rectal wall; the tube was acutely bent in itself. There was no obstruction to the lumen of the gut." The thoracic organs and kidneys were healthy. I have no note or recollection, I am sorry to say, of the condition of the spleen.

The points of similarity between this case and that so fully recorded by Dr. Cayley are so remarkable that, though there are some points of difference, they are so small as to leave no doubt in my mind that this case was also one of acute pancreatitis.

The presence of gall-stones, though no pancreatic calculi were found, is of interest in connection with Dr. Fitz's opinion that the disease is to be regarded as an acute infective inflammation, the "starting-point of which is some inflammation of the stomach and duodenum." The fact that one of the gall-stones protruded into the duodenum in itself suggests that though no gross duodenitis or inflammation of the common bile-duct was present, quite sufficient lesion may have been caused by the stone to allow of the entrance of "infective agents" to the pancreas through its duct.

So far as diagnosis was concerned I did not feel satisfied at the time that the gall-stones alone were sufficient to account for the rapidly fatal illness. Had she given a history of "gall-stone attacks" it might have led to a diagnosis of ruptured gall-bladder or duct; I should certainly not have thought of acute pancreatitis. I have to thank Professor Purser for kind permission to make use of these notes.

A CASE ILLUSTRATING THE RAPID INFLUENCE OF DIETING IN GLYCOSURIA.

By BERTRAM THORNTON, M.R.C.S., L.R.C.P.,
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THE following notes on a case of glycosuria are, perhaps, worthy of record on account of the amount of sugar in the urine and the unusually rapid improvement by appropriate diet.

On March 5th, 1896, Mrs. T., aged 64, consulted me, complaining of intense thirst, polyuria, muscular weakness, rapid wasting, constipation, and generally of symptoms suggesting diabetes. She was unable to assign any cause for the condition or even to give an approximate date as to the beginning of her indisposition, but I was led to believe that her symptoms had existed in gradually increasing intensity for at least five or six months. Her history and usual diet presented no special features.

On examining her urine I found that the specific gravity was 1045, and that it contained a large quantity of sugar; on submitting it to a skilled analytical chemist, he reported to me that it contained 43 grains of sugar to the ounce. I might add that from careful inquiries of the patient it was clear to me that the urine examined had no accidental addition of sugar.

I ordered a strict diabetic diet (Seegen's and Sir W. Roberts's, as described in Burney Yeo's *Manual of Medical Treatment*); this dietary was at once adopted and intelligently adhered to by the patient.

A week later the urine was examined again, and the chemist reported that the specific gravity was 1020, and that there was no sugar, but that it contained an equivalent of 1 per 1,000 of dried albumin. The general symptoms were better, but the patient complained of symptoms of defective visual accommodation.

A week later (March 19th) the specific gravity of the urine was 1016, and it contained no sugar.

Without going into details it may be stated that the urine has been examined from time to time since this date, and that it has contained no sugar, and has been otherwise normal, with the exception of a steadily diminishing amount of albumin.

The patient's general health has improved in every respect, and it may now be considered normal. The ocular symptoms have practically disappeared.

For the first month the diabetic dietary was strictly adhered to; by degrees sugar-forming foods have been added till at the present time the patient is practically taking ordinary diet. The only drug treatment has been a mixture of bismuth, bicarbonate of potash, and hydrocyanic acid. The amount of urine passed *per diem* as measured by the patient from March 5th onward never exceeded two pints. Time alone will show whether the glycosuria will return; the interest of the cases lies in the fact that a strict diabetic dietary reduced the quantity of sugar in the urine from 43 grains to the ounce to *nil* in one week.

COAL GAS POISONING.

By ARTHUR T. JONES, M.R.C.S.ENG., L.R.C.P.LOND.,
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HAVING read with interest the discussion on the pathology of coal gas poisoning, as I have had two cases recently I thought it would be interesting to record them.

On September 18th I was called to a house about 1 o'clock in the afternoon, where two persons had been found in bed, one apparently dead, and the other in a critical condition. The two persons, one a woman 33 years of age and the other a girl, 11 years of age, had been sleeping together. It being a business establishment, and the shop not being opened, suspicion was aroused, and an entrance was forced, and the two persons found as stated. I was immediately sent for, and on arrival, the first thing observed in the room was a powerful odour of gas. The elder person was dead and lay on the bed with lips somewhat cyanosed, but otherwise the features were calm, as if the person was in a natural sleep.

The girl was at once removed from the room to a larger room on the ground floor, with plenty of fresh air passing through. She was deeply comatose, and could not be roused at all, the lips were cyanosed, the arms and legs quite flaccid, respirations very shallow, pulse very small and rapid (140 to the minute); urine was passed unconsciously. Artificial respiration was at once resorted to, and 5 minims of ether were given hypodermically. After about three-quarters of an hour she could be roused by shouting, but very soon fell off again

into a drowsy condition. Strong ammonia was then applied to her nostrils, and a cup of hot strong coffee given her to drink. Friction applied to the chest appeared to have a decided beneficial effect. This treatment was kept up for about an hour and a-half when she appeared to be regaining consciousness. She was then covered up, and removed to her home a few yards away, and placed in a chair before a large fire, with plenty of wraps round her, and some more coffee given to her.

I then left the patient and returned in about an hour, and found her quite cheerful and talkative, and next day she appeared quite well, and showed no ill effects. In two days she was able to give evidence at the inquest of the woman. It appeared that both of them had gone to bed between 9 and 10 on Thursday night. They awoke at half-past three in the morning, and the woman got out of bed to put the gas out, as it was smelling. They then went to sleep again and awoke at 5, both complaining of headache and being sick, and the woman attempted to get out of bed but almost rolled out. Both again went off to sleep and were found as I said at about 12.45 P.M. One point of interest in the case, was that a paraffin lamp was found burning on the dressing table, so that the gas must have been in a diluted condition, otherwise there would have been an explosion, and this again proves that the explosive point is above what is necessary to cause death. The treatment in this case was exactly what has been stated in the discussion: (1) The treatment of the asphyxia by means of artificial respiration. (2) The treatment of cardiac failure by means of stimulants, ether hypodermically being in my opinion decidedly beneficial, until the patient has regained a certain amount of consciousness, when coffee is undoubtedly the best stimulant to administer. (3) The lowering of the body temperature which was kept up by friction to the chest and heat, applied in this case, by placing the patient before a large fire with plenty of wraps round her.

A CASE OF RECURRENT ICTERIC HÆMOGLOBINURIA.

By G. WASHINGTON ISAAC, M.B., C.M. EDIN.

F. C., a single lady, aged 29. Her father and mother are living and in good health, as are also three sisters and two brothers. One of the sisters has suffered from ague. The family have lived for many years upon a hill, around the base of which ague was not uncommon. The patient has no history of ague, and she left the district eight years ago.

Seven years ago, while studying nursing, the patient contracted pleurisy; her right side was tapped upon two occasions; the first time 30 ounces of clear fluid was withdrawn, but the second time very little came away.

On the night of December 28th, 1895, she felt very cold and shivered, and at 7 A.M. the next morning she vomited; in the evening she noticed that her urine was very dark in colour, and a doctor was sent for. He found that her temperature was 104.5° F. On the following morning, December 30th, it was 103° F., she was markedly jaundiced, and passed some urine also very dark in colour. During the day, however, her urine was almost normal in appearance. By January 1st, 1896, the urine had become normal, and the jaundice had disappeared.

On or about February 3rd, 1896, the patient discovered upon awaking that she was jaundiced, and that her water was again nearly black. During the day, however, the water was apparently normal or nearly so. She had this time a slight cough, and some "crepitations" were heard over the site of her old pleurisy. The jaundice lasted as before, about four days, and the early morning urine cleared up *pari passu*.

On or about March 4th, 1896, she complained of pain in her back, and her sisters thought she appeared to be yellow, and on the following morning she found she was jaundiced, and the urine was again very dark. The attack lasted about four days as before.

During the intervals between the attacks the patient, usually of a very energetic temperament, had felt very languid, and unfitted for her household duties.

On June 2nd, 1896, she awoke, and found herself jaundiced and her urine very dark.

On June 3rd I visited her. She was somewhat anæmic, but the face was very much flushed. The temperature was 99°, the pulse 80, weak and compressible, the tongue was clean, the heart sounds normal. She was jaundiced (bright yellow). There was no increase of liver dulness, no pain on pressure over the gall bladder, no irritability of the skin. Her bowels had been opened, and the motion, I was told, was drab coloured. The urine which had been saved from the morning appeared black, but that passed later had only a very slight dark sediment. I ordered a pill containing hydrarg. subchlor. gr. $\frac{1}{2}$ and podoph. res. gr. $\frac{1}{4}$, to be taken at night.

Next morning, June 4th, the jaundice was decidedly less, the urine passed first thing in the morning was black as before, but that passed later appeared quite normal. The bowels were opened; the motion contained bile. She was ordered a mixture containing perchloride of iron and nuxvomica.

On June 6th the jaundice had quite gone; the morning water had only a slight dusky sediment.

Examination of the dark urine passed June 3rd: Reaction acid, specific gravity, 1028. The naked eye appearance suggested the presence of blood, but it in many respects differed from ordinary bloody urine. It was not quite so smoky, and after standing a short time the deposit was not so dense, and the supernatant fluid was a bright brownish red. Boiled with nitric acid or picric it yielded a copious precipitate of albumen. I then filtered some of the water, and it still gave a copious precipitate of albumen. Microscopically I found no blood corpuscles, but a large quantity of amorphous debris, some hyaline casts containing granular matter and epithelial cells. Spectroscopically it showed the absorption bands of oxy-hæmoglobin. I expected to find bile present, but on shaking the bottle I noticed that the film left was not yellow nor was the slight froth produced of a yellow tint. I tested it with a drop of nitric acid upon a white plate, and a friend of mine tested it with Pettenkofer's test with negative results. I tested a specimen of the day urine passed on June 4th, and it was normal in all respects.

Remarks.—Excepting during the first attack the only dark urine passed was that which was voided first in the morning; the subsequent passages were all apparently normal or nearly so. McIlhatton's¹ description of the urine of hæmoglobinuria tallies very nearly with my examination. All the authorities I have consulted agree that hæmoglobinuria is chiefly confined to the male sex. Although the patient was anæmic, and she had had at time some numbness of the right leg and arm, there was no further feature indicative of Raynaud's disease. The recurrence of the attacks first of all at intervals of one month, and then after an interval of 3 months, would suggest a relationship to the menstrual periods—these were, however, of the 21 days type, scanty, but normal.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

RENI-PUNCTURE.

A study of the cases mentioned by Mr. Reginald Harrison leads me to suggest that the condition which was relieved by the operations was hydronephrosis, and not merely nephritis. It is quite clear from the description that this was so in the second case, and it appears to me highly probable that a similar condition existed in the other two patients. Many of the symptoms mentioned are found in cases of hydronephrosis, and are relieved by exploration of the kidney even when no cause for the dilatation of the pelvis is found at the time of operation.

In the second case quoted from Dr. Newman, it is said there was no hydronephrosis, but I think it is hardly likely that a movable kidney which gave rise to symptoms such as those mentioned could fail to leave some dilatation of the pelvis.

¹ Sajous. *Times and Register* (Philadelphia).