generally accepted there a year before Cohnheim's *Manual*, in which he first gave expression to the embryonic theory, was published in Germany. Besides Durante's theory is not so exclusive as Cohnheim's, as Durante admits that elements which have reacquired embryonal characters in the adult organism through a deviation of the chemico-physiological activities in the adult organism may also be the generating elements of neoplasms, and that an irritation or a stimulus suffices to excite in these elements the growth of a tumour. These two statements were not accepted by Cohnheim, but they are consonant with the teaching of the majority of the pathologists of to-day.

When Professor Durante published his theory, now twenty-two years ago, he was a young man of 29 years of age, and occupied the post of *Libero Docente* of Surgical Pathology at the University of Rome. It was, however, only a forecast of the ability he has since shown both as a scientific and practical surgeon. The ultimate outcome of this is his excellent *Treatise on Surgical Pathology and Therapeutics*, which is now being issued in Rome, and of which two volumes have been already published. To anyone who is conversant with the Italian language I strongly recommend this work, more particularly that portion of it which contains the division on tumours, which certainly has not been surpassed, if equalled, by any work on tumours written up to the present time.

A CASE OF PARAPLEGIA DUE TO SPINAL CARIES: MÉNARD'S OPERATION.

By T. SINCLAIR KIRK, M.B.,
Assistant Surgeon, Children's Hospital, Belfast.

S. M., aged 5½ years, was admitted to the Belfast Hospital for Sick Children on February 4th, 1895, with loss of power in the lower limbs, accompanied with rigidity, increased patellar tendon reflex, and ankle clonus. She remained in hospital till June 11th, and during this interval caries of the upper dorsal spine was diagnosed. There was scarcely any deformity. She was treated by extension, but her symptoms gradually became worse, and finally before she left she had to a great extent lost control over the sphincters of the bowel and bladder. In June the Children's Hospital was closed, and she was sent to the Throne Hospital for Children.

I saw the child at the Throne Hospital in July, and her condition was as follows: There was slight angular curvature of the spine, with the fifth dorsal vertebra at the most prominent spot; loss of control of the sphincters of bladder and anus; complete motor paralysis of both legs, the right one being somewhat rigid, the left one not at all rigid; complete analgesia as high up as the lower part of the thorax, and over same area almost complete anæsthesia; ankle clonus well marked, patellar reflexes exaggerated, and superficial plantar reflex obtained as a slight extension of the great toe after prolonged light friction of the sole.

She was readmitted to the Children's Hospital on September 26th. She was then greatly wasted, and had some slight bedsores, and the curvature was greatly increased. Extension was again tried by Dr. McCaw, under whose care she was, but without any good effect. The anæsthesia of the lower part of the body and legs became complete, and from the middle of October all her motions were liquid and frequent, and any variation from a fish and milk diet or any warm liquids at once brought on an attack of diarrhoea, which was not affected by any astringents or by opium. She continued to waste rapidly, and at the time of operation was very much emaciated.

On January 14th, 1896, I operated on the patient according to Ménard's plan. A longitudinal incision, 4 inches long, was made just internal to the tips of the transverse processes on the left side. The fourth and fifth dorsal transverse processes, their junction with the laminae and pedicles, their articulation with the ribs, and a portion of the ribs beyond the joints were laid bare. The transverse processes were cut through at their bases and freed from the ribs and removed. The ribs were cut through internal to their angles and the heads and necks removed. The diseased portions of the bodies were then very easily found, and when all the carious bone had been removed a cavity was left which had no firm

boundary in front; behind there was something which was fairly tough—possibly some of the posterior common ligament. All the bone on the left side was removed, but on the right side part of the bodies was left. The lower part of the cavity was flat and the upper part had one or two firm pieces of bone projecting into it. The cavity seemed to correspond to the body of the fifth and part of that of the fourth dorsal vertebrae. In removing one of the portions of rib the pleura was punctured, but no harm seemed to be done. No drainage tube was used, and the wound was entirely closed by deep and superficial stitches.

The patient was nursed on her face for the first eleven days. Immediately after the operation the patient was considerably collapsed, but she soon recovered, and three hours after the operation her temperature was 103°. She complained of a good deal of pain in the back of her neck, and was very restless during the night. Her temperature was normal twenty-four hours after the operation, and she had no more pain and slept and ate well from that time on.

January 16th. Two days after the operation the patient passed a couple of solid motions, and could give warning when the bowels and bladder were going to act.

January 18th. Four days after the operation the superficial plantar reflex was easily obtained and well, that is, all the foot moved, and the patient could tell quite quickly when her legs were touched.

January 21st. Wound was dressed, and had healed without any suppuration.

January 24th. Ten days after the operation the analgesia was quite gone.

January 30th. Sixteen days after operation the patient could flex and extend her thighs and knees and move her feet.

A few days later she could move her toes quite well. She went on steadily improving, and soon acquired complete control over the bowels and bladder, and there has been no return of the diarrhoea which troubled her so much before the operation.

On April 13th a jacket with a head support was applied, and the patient was allowed to attempt walking and standing, which she could do with some support.

She was then sent to the convalescent home in the country, and in June a sinus formed about the centre of the operation wound, which has been discharging a small amount of thin pus since then.

She can now walk round the ward holding the nurse's hand. The ankle clonus has entirely disappeared, and the knee-jerks are normal. There is no change in the amount of curvature since the operation.

A CASE OF ACUTE PANCREATITIS.

By RICHARD H. KENNAN, M.B.,
Dublin.

THE case of acute pancreatitis described by Dr. W. Cayley in his clinical lecture, and reported in the *BRITISH MEDICAL JOURNAL* of July 4th, 1896, must be of great assistance in further investigation of this condition, which—as Dr. Cayley says—though probably rare, is possibly not so rare as is commonly supposed.

Reading accounts of cases of acute pancreatitis published last year brought to my mind a case which puzzled me much at the time, in the year 1894, when I was house-surgeon at Sir Patrick Dun's Hospital, Dublin. Since reading Dr. Cayley's paper on the subject I have looked up the notes of the case in the hospital, taken when acute pancreatitis was a condition and subject quite unfamiliar to me.

The patient—M. B., a married woman, aged 38—was admitted to hospital at about 7 P.M. on July 18th, 1894, complaining of pain in her stomach. She stated that about noon on July 17th she was seized with vomiting and pain in the upper part of her abdomen. The pain and vomiting continued, and the abdomen gradually became distended. She passed a small quantity of urine on the morning of July 18th, but none since, and when the catheter was passed after her admission there was no urine in the bladder.

She was in a collapsed condition. The temperature was

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