cicatrized wound over the interventricular septum, and will be interesting as furnishing additional proof of the fact that the heart may be the subject of laceration from external violence, and still be amenable to the healing process.

The patient, a young Maltese, was admitted to hospital on October 21st, 1895, in a state of extreme collapse, bleeding freely from a wound in the left side of the chest over the region of the heart. I ascertained that during a quarrel with another Maltese he had been stabbed, probably with a large knife, and had almost immediately dropped on the ground. On examination in hospital, I found a horizontal wound in the chest over the cartilage of the fifth rib, and the cartilage itself was penetrated longitudinally by a slit $1\frac{1}{2}$ inch long. Bright arterial blood in considerable quantity was issuing in jets from the wound synchronously with the heart's contractions, and air was also passing with loud hissing noise on each movement of respiration. The heart sounds were muffled, and the pulse at the wrist was almost imperceptible. There appeared to be little hope of the patient's rallying, and his dying deposition was taken without delay. The surface of the body and extremities remained cold, and the pulse collapsed for twenty-four hours, when signs of returning warmth began to be observed. Breathing was very rapid, and the whole of the left side of the chest was absolutely dull on percussion.

A week later the patient's condition was still very critical. A sero-sanguinolent fluid was escaping in large quantity from the wound, and a cavernous resonance over the upper portion of the left lung indicated that pneumothorax had supervened. A month after the infliction of the wound the discharge from it was still abundant, and had become purulent. The pleural sac had become converted into a large suppurating cavity, and in spite of frequent antiseptic washings the character of the discharge did not improve. The fifth rib was therefore resected posteriorly so as to permit of a thorough drainage of the cavity, and a large rubber tube was inserted. The immediate effect of the operation was marked and satisfactory. Progress, however, was slow and fitful, and it was only after four and a-half months that the patient's condition allowed of his sitting up in bed and being moved about the ward in a wheeled chair. One morning whilst he was sitting up and having his wound dressed he suddenly threw back his head, went into a convulsion, and remained insensible till the evening, when he died.

Post-mortem examination revealed deep congestion of the posterior surface of the brain, and an apoplectic clot of some size resting upon and compressing the occipital lobes. No evidence of embolism was apparent. The immediate cause of death, therefore, was clearly apoplexy. On opening the chest the left lung was found to be collapsed and retracted upwards against the spinal column. The pleura was adherent to the pericardium, the interior of the pericardium and surface of the heart were granular, and some serous fluid was found in the pericardial sac. There was a cicatrix in the pericardium corresponding in position to the external wound, and immediately subjacent to it was discovered a cicatrix in the anterior surface of the heart itself. This cicatrix was three-quarters of an inch in extent, horizontally placed, and was situated over the interventricular septum, about $1\frac{1}{2}$ inch from the apex of the heart. It was found on section to have penetrated to a depth of five-eighths of an inch into the muscular substance of the heart. The left coronary artery and vein had been cut across. Apparently therefore the wound of the heart, although it probably had a remote influence in determining the fatal issue in this case, was not the immediate cause of death, and evidence to this effect was given at the coroner's inquest and at the trial.

It appears almost certain, and yet almost incredible, that after the infliction of the wound the pericardium must have been filled up with blood from the division of the coronary vessels, and yet the heart's action was not thereby brought to a standstill, but even entirely recovered from so gross an impediment.

MEDICAL MAGISTRATE.—Dr. T. Tinley, of Whitby, has been appointed to the Commission of the Peace for the North Riding of Yorkshire.

THE AUTHOR OF THE EMBRYONIC THEORY OF TUMOURS.

By JOHN J. EYRE, M.R.C.P., and R.C.S.I., D.P.H.CAMB., Rome.

MR. W. ROGER WILLIAMS in his interesting paper on *The Rôle of "Rests" in the Origin of Tumours*, read at the Carlisle meeting of the British Medical Association, and published in the *BRITISH MEDICAL JOURNAL* of October 10th, p. 1021, where he speaks of "when Cohnheim first announced his celebrated theory of the origin of tumours from sequestered fragments," has fallen into a very justifiable, because almost universal, error amongst pathologists outside of Italy in considering Cohnheim as the author of the embryonic theory of tumours; that is, if we accept the dictum that the person who first publishes a theory, and at the same time gives evidence that this theory originated in his brain through investigations made by him, should be considered as its author. This being admitted, there is not the least doubt that the true author of the embryonic theory is Francesco Durante, the eminent Professor of Surgery of the University of Rome, as is clearly proved by a monograph entitled *Nesso Fisiopatologico tra la struttura dei Nei materni e la genesi di alcuni tumori maligni* [*The Physio-pathological Connection between the Structure of Maternal Nævi and the Genesis of some Malignant Tumours*], written by him and published in the *Archivio di Palasciano*, May, 1874.

Perhaps the best way to present the evidence which undeniably proves the prior claim of Professor Durante to this theory will be to give the literal translation of an extract taken from a paper published by Durante in *Il Policlinico* of January 1st, 1895, which not only contains that portion of his original monograph in which he stated his theory, but also a very interesting account of the genesis of the theory in his mind.

The frequent appearance of malignant tumours in these congenital productions, which are commonly called maternal nævi, already observed by many clinicians, especially impressed me in two cases. After I had treated surgically two dermoid maternal nævi I saw two sarcomata rapidly arise. I therefore thought that a predisposition to the development of malignant tumours must exist in them. I studied the pieces removed before the appearance of the neoplasms microscopically, and in both I found an angiomatous tissue, composed of capillaries in one and of sanguineous spaces in the other. The stroma in both consisted of round and fusiform young cells, although at first sight the sanguineous canals did not appear furnished with walls proper. I therefore convinced myself that these elements with embryonal characters were congenital germs, which, incompletely extirpated by me and irritated by the operation, gave origin to the sarcomas.

To strengthen still more the concept that I had formed I instituted histological researches on numerous maternal nævi removed from cadavers appertaining to individuals of diverse sexes and ages. I found that these congenital productions were generated either by an anomaly of development of the papillary bodies or by an irregular arrangement of the epidermic cells. In the greater number of them, excepting the pigmentation of the mucous body of Malpighi and of some connective tissue cells of the derma, the epithelial elements and the connective tissues were seen completely developed, and the delimitation between the derma and the epidermis was still very recognisable. In a relatively very small number of the nævi I observed in the dermoid type, in place of the fibrous tissue, the above-mentioned young cellular elements; in the epidermoid, branches of epithelial cells which descended deeply into the derma, in which they gradually lost the cutaneous epithelial form through being reduced in the deepest parts to nests of embryonal elements.

This research led me to the belief that malignant tumours develop in the last species of nævi, which contain congenital connective tissue and epithelial germs. Then embryological and teratological studies, anatomico-pathological observations, and the evolution of certain organs at the period of puberty presented themselves to my mind, and from a consideration of all these facts, I came to the conclusion expressed in a little memoir on the structure of maternal nævi, published May 26th, 1874 in the *Archivio di Palasciano*, that "the elements which have preserved embryonal anatomical characters in the adult organism, or which have reacquired them through a deviation of the chemico-physiological activities represent for me the generating elements of every neoplasm properly so-called, and especially of those which are malignant. Such elements remain included in the well-developed tissues for years and years without giving an inkling of their existence. When an irritation, a simple stimulus, suffices to excite in them that movement and those cellular properties that heat excites in the elements of the germinative macula of the eggs of birds which have lain inert from the moment that they are laid. In fact, if we reflect for a moment how much the disposition of the tissues which co-operate in the organic construction of an epithelial cancer may be complicated, we must at least admit that the genesis of cancer in a limited point of the organism is due to the reproduction of entire embryonal acts, represented by the cells that possess the necessary anatomico-physiological properties.

This theory of Durante's was published in Italy, and

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