posteriorly at the occipital protuberance. The vault consisted of membrane, in the anterior third of which were two lateral lobes and one anterior lobe united at the bases, each as big as a blackbird's egg and suggestive of an encephalocele. There was no obvious cerebrum but the cerebellum and the parts below seemed normal. The feet showed fixed talipes equino-varus.

Had I remembered the usual associated conditions of anencephalus—viz., an absent or a short neck and long bisacromial diameter—I should not have marvelled at the delay after the birth of the head. Even if the period in May was missed pathologically, unless the large size of the child be looked at as vicarious to the non-developed head, pregnancy was evidently protracted. The convulsions in November, the hydramnios, the talipes, the so-called maternal impression, and the consanguineous marriage are other interesting features of the case. In spite of the long detention the child lived for 15 minutes after birth and then died after some slight convulsions. I might have obtained more room had I amputated the head, but the absence of a neck and the proximity of the head to the vulva made this impracticable without risking a worse injury than a ruptured perineum. This might also have been avoided had I done cleidotomy. The course pursued appeared on the whole to present fewest risks to the mother. There was no maternal pelvic deformity.

Ilminster.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

UNILATERAL PRESSURE ON THE THORAX AS AN AID IN DIAGNOSIS.

BY G. MORENO DE LA TORRE, M.D.

PNEUMONIA can usually be diagnosed with tolerable certainty, but it occasionally happens that the physical signs are obscure or difficult to elicit, as, for instance, in cases of chronic pulmonary disease with emphysema, adhesions, &c., or in very corpulent patients, or in females with abnormally large breasts, or when the pneumonia is central. The general symptoms are also sometimes misleading in the very young, in the very old, and in the intemperate. In all such cases, if pain be present, however slight or vague or abnormally situated, it may, I think, be made available as an aid to diagnosis in the following manner. If both hands are applied over one side of the chest in front and pressure sufficient to arrest all movement in the subjacent lung be slowly exerted, when the inflammation causing the pain is in that lung the pain will either disappear or, in the event of it persisting, the patient will at least breathe without discomfort. If there be inflammation in the other lung also the pain will generally continue, though its character and seat may change. If the inflammation is in an abdominal organ or the tissues surrounding it the pain will continue and will perhaps increase. I have not yet had an opportunity of testing this sign in pericarditis. By making pressure first on one side of the thorax and then on the other it may be possible to draw conclusions as to whether the part affected is in the thorax or the abdomen, and in the former case on which side of the thorax it is. If pain referred to the abdomen disappears when pressure is made on the thorax the inference is that the primary cause of it is some pulmonary disorder.

Cerrada del Paseo, Habana, Cuba.

EXPLOSIVE ERUCTATIONS.

BY ANTONY A. MARTIN, M.D., B.S. LOND.

AN elderly man under my care has been suffering for some weeks from severe atonic dyspepsia. A marked feature of his case is fermentative decomposition of the contents of the dilated stomach with frequent eructations of foul gas which he says "tastes like rotten eggs." On Sept. 19th, two hours after a light breakfast, he was obliged to eructate

just as he was lighting his pipe with a match; instantly there were a blinding flash and a slight report due to ignition of the gases released from the stomach. The patient's beard and eyebrows were thoroughly singed but happily no further damage was done.

It would be interesting to hear of similar cases and whether this dangerous complication of dyspepsia is at all common.

Eastbourne.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

CARDIFF INFIRMARY.

A CASE OF RESECTION OF THE STERNUM FOR A SARCOMATOUS GROWTH.

(Under the care of Dr. P. RHYS GRIFFITHS.)

THE number of recorded cases in which resection of the sternum for a malignant growth has been performed is by no means large. In some cases the bone has been resected because it has been involved in a malignant growth extending from neighbouring parts, but the operation is generally performed for a primary sarcoma of the bone. It is always extremely difficult and often impossible to determine when the anterior mediastinum is involved, so that the prognosis must always be grave; but sufficient instances have been published to show that in suitable cases resection of the sternum for malignant disease is a very satisfactory operation. In the following case the disease was extensive and at the necropsy other parts of the body were found to be involved, but the patient lived for four months after the operation even though it was not found possible to remove the whole of the local disease.

A man, aged 25 years, a collier, was admitted into the Imsoll Ward of the Cardiff Infirmary under the care of Dr. P. R. Griffiths on March 29th, 1900, for a swelling over the sternum. Dr. Eldon Pratt stated that the man was quite well and fat and able to work until seven months before admission. He was then attacked with vomiting some three times daily. The vomiting lasted for a week. It was then for the first time that he noticed a swelling over the breast-bone. Ever since he had been getting thinner and weaker. At Christmas, 1899, he had an attack of influenza and was laid up for six weeks. Since then he had been unable to follow his occupation. The lump at this time (Christmas) was of about the size of a walnut. Seven weeks before admission he had a severe cough for a week and he stated that from this time the lump had been increasing rapidly in size. It had caused him practically no pain, except occasionally, when it was like a knife running into him. He had had no fainting or dyspnoea. His appetite had been good. He had always been a healthy man. He had had no illness except influenza. He had not had syphilis or gonorrhoea. There was no history of a blow. On admission he was a very sallow-complexioned man, dark, tall, and thin. He had evidently wasted a good deal. He seemed to move somewhat feebly and he looked as though he might be the subject of malignant disease. He did not complain of pain but he stated that he had an attack of pain in his chest the day before admission. On examination of the chest there was found a symmetrical swelling centrally placed over the sternum. The swelling was prominent in its centre and it shaded off all round, but the edge could be fairly well felt. It extended from the second to the seventh costal cartilages. It was hard and tense, but in one or two places it gave the impression of fluctuation. It was firmly fixed to the sternum and could not be moved. The costal cartilages as well as the sternum were somewhat raised above the general level of the chest. The skin over the tumour was quite healthy and of normal

colour. No pain was felt on deep pressure. The note on percussion was dull and there were no auscultatory signs. There was no pulsation in the tumour. The heart and lungs were healthy, as were also the abdominal organs. The urine was normal and had a specific gravity of 1010 and acid reaction.

On April 7th, assisted by Dr. Pratt, Dr. Griffiths decided to resect, if possible, the sternum. Chloroform was administered, whilst oxygen was kept in readiness for emergencies. A large oval flap was turned up and dissected off the tumour. When fully exposed the tumour was incised and found to be to all appearance a malignant growth. There was no fluid in it. The limits of the tumour were then fully defined as seen from the front. On the right side the perichondrium was carefully stripped off the cartilages of the second, third, fourth, and fifth ribs, and these were cut through. A sufficient piece of cartilage was removed to allow room for getting behind the sternum. The intercostal muscles were then cut through and the pleura was exposed. After freeing the right side the left side was treated in exactly the same way. The sternum was then cut across at its upper end. An attempt was first made with a saw but it was found that a bone-forceps was much more serviceable. At this stage on inserting the fingers under the sternum the growth was found to be more extensive on the under surface, involving the anterior mediastinum. When freeing the left upper corner of the sternum the left internal mammary artery was cut across, blood escaping in large volume with a loud hissing noise. The bleeding was alarming and in order to get at the bleeding point the upper part of the sternum was detached with great rapidity; in doing this the left pleural cavity was opened and the lung was exposed, presenting in the wound. A plug of sterilised gauze was inserted into the pleural cavity and the artery was seized with a Kocher's forceps. It was found impossible to tie the vessel and the forceps was left on it. After clearing the pleural cavity the rent in the pleura was sewn up except a small hole which it was not possible to close owing to the rigidity of the parts in that situation. The greater part of the growth in the anterior mediastinum was removed, but it was not possible to get the whole away, some of it having extended upwards along the vessels under the clavicle. The right pleura remained intact. The pericardial sac was fully exposed and the beatings of the heart were observed to be violent and rapid. Air gushed in and out of the left pleural cavity. The patient's pulse all this time was good and he was kept just under the influence of the anæsthetic. The skin-flap was then sewn up after a large iodoform gauze plug had been inserted into the cavity left after the removal of the sternum. It was noted that there was some slight tension in the flap, evidently the result of the enlargement of the left chest. The operation lasted for two and a half hours. The patient's condition on removal to bed was fairly good.

The patient soon recovered consciousness. At 1 P.M. he seemed to be rather bad. Hypodermic injections, consisting of five minims of solution of strychnine, were ordered every four hours. At 6 P.M. he was easier; $\frac{1}{100}$ th of a grain of digitalin was ordered to be given every three hours. At 11 P.M. a hypodermic injection of one-fifth of a grain of morphia was given. On April 8th he had slept the previous night for two hours. He looked fairly well. On the 9th the wound was dressed at 3.30 P.M., the plug being removed. The forceps was taken off the internal mammary artery. Some pus escaped with the plug, also a little air from the left pleural cavity. The wound was replugged with iodoform gauze. The strychnine and digitalin were stopped, the patient having had them for 48 hours. On the 13th the wound was dressed twice a day. A considerable quantity of yellowish-green pus escaped. There was a tendency to sloughing of the lower margin of the skin flap. The temperature was high in the afternoon but the patient seemed to be easy and lay quietly. Light food, such as eggs, milk, and brandy, was being taken well. On the 17th the stitches were removed. The flap was slightly retracted. Boric fomentations were ordered. There was still much pus. On the 27th the wound was granulating up well. He was on full diet and his appetite was excellent. A small semi-fluctuating lump was observed on May 18th springing from the anterior end of the tenth rib; it was not painful and was probably a secondary growth. On May 22nd the patient's condition had been declining. His appetite had failed and he was looking paler, thinner, and more feeble. The condition of the wound was very satisfactory. On July 25th he complained of pain in his chest. The right hand and arm had

become swollen and painful. Some sign of recurrence of growth was present in the upper and lower angles of the wound. The growth on the rib was as before. From this time he gradually got weaker and he died on August 2nd from exhaustion, four months after the operation.

The growth removed at the operation was examined and found to be a round-celled sarcoma.

Necropsy—A post-mortem examination was made on August 3rd by Dr. W. Mitchell Stevens, pathologist to the infirmary. A large moderately firm grey mass involved the posterior surface of the portion of the sternum left after operation and also the attached rib-cartilages for a distance of two or three inches. The ribs chiefly involved were the third, fourth, and fifth. The clavicles were free. The growth entered into the anterior mediastinum, involving the connective tissue and glands there. The bronchial and lower cervical glands on both sides were involved. The pericardium and heart were free from growths. The pleura on both sides, especially the right, showed numerous nodules in the parietal layer situated both on and between the ribs. The lungs were not affected. No pleural effusion was present. The growth on section was moderately hard, greyish in colour, and presented no spots of hæmorrhage or degeneration. There was no ascites in the abdomen. No nodules were seen in the pericardium, but there were a few scattered ones grey in colour in the upper surface of the liver and these were of about the size of a pin's head. The stomach and intestines were normal. The spleen was slightly enlarged and firmer than natural and one section showed a large number of small grey nodules similar to those in the peritoneum and upper surface of the liver. Excepting the nodules above mentioned nothing was found in the liver itself, but there were a large number of enlarged glands in the portal fissure adherent to the under surface of the liver. In front of the spine and below the level of the pancreas was a large mass of hard, grey, nodular growth of the size of the closed fist. This was adherent to the aorta and spinal column and seemed to arise from the glands. The mesenteric glands were not enlarged. The diaphragm showed on its under surface, about the centre of the arch on the right side, a growth of about the size of a walnut adherent to the upper surface of the liver. No growth was found in any other part of the body. Microscopically the growth presented the characters of a lympho-sarcoma.

Remarks by Dr. GRIFFITHS—The operation of resection of the sternum is not one of frequent occurrence, and as the above case presents some interesting features I have thought it worthy of record. The subject has been fully treated in Mr. Stephen Paget's very interesting work on the "Surgery of the Chest." My opinion when I first saw the case was that I had to deal with a primary growth of the sternum of a sarcomatous nature. It was for this reason that I determined to attempt the removal of the growth and the sternum. In the light of the subsequent operation and post-mortem examination I am inclined to doubt the accuracy of my diagnosis. In the previous history of the case there was nothing to suggest a mediastinal growth, neither was there evidence after careful physical examination of the chest that there was any marked involvement of the mediastinum. In spite of this I was prepared, after previous experience with growths from the ribs which I have removed and after perusal of the literature of sternal growths, to find that what appeared to be a well-defined and limited growth externally had wide and deep extensions. This proved to be the case in my patient and it was found that the structures in the anterior mediastinum, and especially beneath the left clavicle, were so far involved that complete removal of the growth was impossible. The opening of the left pleural cavity was a pure accident and might have been easily avoided but for the necessary rapid manipulation to secure the arrest of bleeding from the internal mammary artery. The degree of shock was comparatively slight. I am indebted to Dr. Pratt for the notes of the case.

ABERGAVENNY COTTAGE HOSPITAL.—A new building which is called the Victoria Cottage Hospital and Dispensary was opened by Lord Tredegar at Abergavenny on Oct. 6th. The institution is to replace the old cottage hospital and will also be the home of the Abergavenny Dispensary which was established nearly 75 years ago. There is accommodation for nine patients of each sex. The cost of the building was £1925 and the land upon which it is built was given by the Abergavenny corporation.