

CASES OF CONGENITAL DEFORMITY IN THE FŒTUS.

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IN the first of the two following cases what might be described as the principal abnormality consisted of hernia of the stomach, spleen, and intestines into the thoracic cavity. The case was that of a male infant who was born after a normal labour and respired at birth but exhibited cyanosis soon afterwards. When he was first seen by us the respiratory movements were chiefly abdominal. He was ordered a "mustard" bath which partially revived him. Dextrocardia was diagnosed during life, the heart pulsation being to the right of the right nipple line. The liver was in the normal position and enlarged. The lungs evidenced atelectasis, a little air entering at the right base and still less at the left base. There were resonance over the right half of the thorax and marked hyper-resonance over its left half. Death occurred 14 hours after birth.

A post-mortem examination was made of the contents of the thoracic and abdominal cavities. On removing the sternum the heart was found to be pushed over to the right side of the chest, the right ventricle being uppermost, the base of the heart pointing to the right of the right nipple line and the apex pointing to the left of the right nipple. The pericardium contained a few drachms of serum. Atelectasis adnata existed, the lungs being compressed on each side of the spine. The right lung was slightly inflated, especially its lower lobe; the left lung was still less inflated. The tissue of each lung floated in water. The left side and part of the right side of the thorax was occupied by the stomach, the whole of the small intestines, and the greater part of the colon. The spleen was found behind the stomach isolated and separate from the left suprarenal capsule, the latter with its corresponding kidney being in the abdominal cavity. The spleen had a deep cleft in it dividing it to its centre. The colon was continuous with its lower portion through a ring-shaped aperture in the left crus of the diaphragm. Below the diaphragm the upper two-thirds of the abdominal cavity was occupied by the liver, the left lobe of which was relatively small. The gall-bladder was distended with greenish bile. Beneath and below the liver the two kidneys, which were structurally normal, with their suprarenal capsules, were found some two inches below their proper position on each side of the spinal column. To the left of the spine were a small portion of the descending colon, the sigmoid flexure, and the rectum.

The second of the two cases, which was seen by only one of us (H. O. L.), was a female infant. It was stillborn and was expelled suddenly, the funis being ruptured. Inspection of the body enabled the following particulars to be noted. The length of the body was 17 inches. The circumference of the head was ten and a quarter inches; the antero-posterior diameter was four and three-quarter inches; the occipito-mental diameter was four inches; and the sub-occipito-mental diameter was three and a half inches. The occipital bone was very small; the large interval between it and the posterior fontanelle was closed by membrane. The anterior fontanelle ran down as far as the coronal suture, becoming continuous with the frontal suture, the whole hiatus being occupied by membrane. The right ear was malformed, having only a rudimentary helix and no concha. The left eyelid was arrested in growth, shortened, and closed. The thorax was contracted above and expanded below. The acromial end of each clavicle was prominent. There was well-marked "beading" of the ribs. The right forearm was pronated. The right thumb and forefinger were flexed; the middle finger was flexed across the forefinger. There was dactylitis of the first phalanx and the proximal end of the second phalanx of the ring finger, which with the little finger was straightened out. The left forearm was supinated. The left thumb was extended from the palm; the four fingers exhibited dactylitis; the phalanges of the left forefinger were extended, the upper end of the first phalanx being dislocated on to the palm; the remaining fingers were flexed. The umbilicus was occupied by a large omphalocele containing several coils of intestine; the sac

measured four inches in circumference and two and a half inches from the abdominal wall to the fragment of funis at its lower end. The head of each femur was dislocated, the right more than the left, towards the thyroid foramen. The muscles of the arms and thighs exhibited indurations. The right tibia was curved and somewhat twisted, with the concavity on the inner side. The left tibia was more curved than the right one, with marked concavity on the inner side. The right foot manifested talipes equino-varus. The right big toe was in a line with the side of the foot; the next two toes were long; all three toes were separated from one another. The second toe was straightened; the two outer toes were shortened and flexed. The left toes were normal in length but the left little toe was deformed and curved under the sole of the foot. The genitals were normal.

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.

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL, E.

A CASE OF DIAPHRAGMATIC HERNIA.

(Under the care of Dr. EUSTACE SMITH.)

FOR the notes of the case we are indebted to Mr. P. Stanley Blaker, late resident medical officer.

A male child, aged two years, was admitted to the East London Hospital for Children on June 16th, 1901, for diarrhoea and vomiting. The history elicited from the mother was as follows. The patient was taken ill suddenly with severe vomiting on the morning of June 13th, which persisted after each meal till admission into hospital. He also became very drowsy and feverish and started in his sleep every now and then. On June 11th and again on the 16th (the day of admission) the patient had an attack of diarrhoea, though during the intervening time the bowels appeared to have been normal. There was no history of any previous illness. The family history was good. On admission the patient was fairly well nourished but looked very pale and extremely ill. In bed he lay on his back, with his legs extended and in an apparently semi-conscious condition. The eyes were sunken and half-closed, showing the sclerotics. At times he screamed. The breathing was quiet and easy though hurried and there was no cyanosis. The pulse was rapid (about 120) and regular. The temperature was 105° F. in the rectum. There was no œdema. An examination of the chest revealed nothing abnormal in the heart or the lungs. The abdomen looked natural, moved with respiration, and was soft, though the patient somewhat resented palpation. The liver and the spleen were made out to be of normal size. The progress of the case may be briefly summarised as follows. On the day after admission there was marked tenderness of the abdomen, so much that the patient cried out whenever the abdomen was touched; this, however, became less evident later. The bowels had acted several times, the motions being green, slimy, and offensive. On the 18th some dulness and tubular breathing were detected over the upper lobe of the right lung posteriorly and a day or two later these signs of consolidation were also manifested over the front of the right chest. The vomiting ceased soon after admission and the diarrhoea also abated, but gradually. The temperature ranged between 102° and 105°. The left ear discharged pus freely. The general condition became worse and the patient died on the 23rd.

Necropsy.—The body was well nourished. The eyeballs were much sunken. The tongue, the fauces, and the œsophagus were natural. With regard to the thorax the upper lobe of the right lung was solid, voluminous, but not adherent. On section it presented greyish lobular areas of broncho-pneumonia. The middle lobe also had patches of

broncho-pneumonia but to a less extent. The lower lobe was shrunk to about a third of its normal size, but it was not collapsed or airless nor did it appear to be diseased. The upper lobe of the left lung showed a few scattered patches of broncho-pneumonia. The lower lobe was partly collapsed and was covered by a layer of lymph on the surface. There was thick green lymph scattered over the whole surface of the visceral and parietal pleura of the right lung, but there was no collection of fluid pus. As to the heart, there were a few flakes of lymph in the folds of the pericardium round the vessels at the base. With regard to the abdomen, behind the liver and immediately to the right of the oesophageal opening, was a diaphragmatic hernia. The tendon of the diaphragm was stretched out over the protrusion (there was no rupture of the tendon) in the right side of the chest and formed a sac of about the size of a large hen's egg. The mouth of the sac was not constricted and it contained about half of the stomach, including the cardiac and pyloric orifices, so that the finger could be passed straight into the sac from the oesophagus or from the duodenum. Most of the greater curvature of the stomach was outside the sac. There were no adhesions and the hernia was readily reduced. There was also some omentum in the sac. The stomach and the intestines were natural. The liver was fatty; the spleen was natural; the kidneys were pale and showed some cloudy swelling. The brain and the meninges were healthy.

Remarks by Mr. BLAKER.—A diaphragmatic hernia is a sufficiently rare condition to merit publication of the above case. Two varieties of diaphragmatic herniæ are described—one the congenital (or true) and the other the acquired (or false). In the former the abdominal viscus passes through either a deficiency in the structure of the diaphragm or through one of the natural openings which may be unusually large. Such openings may be the oesophageal or one of the fissures situated between the sternum and seventh costal cartilage in front or between the lumbar and costal attachments of the diaphragm behind. Sometimes, however, a portion of the diaphragm seems to be weakly developed and yields before a hernial protrusion. This bulging occurs more often in the muscular portion of the diaphragm. In the latter variety (acquired), which is by far the commoner (about 10 to 1), the hernia is nearly always due to an injury which tears through the diaphragm and allows the abdominal viscus to escape in practically every case without a peritoneal covering. Both varieties are said to occur mostly on the left side—i.e., the protrusion takes place into the left side of the chest—the pleura being either torn through or else carried before the hernia. The presence of the liver on the right side is held responsible for this greater frequency of herniæ on the left side. The organ most commonly displaced is the stomach, next in frequency is the transverse colon, and then follow the omentum, the small intestines, the spleen, the liver, the pancreas, and the kidneys in the order named. Considering these few facts it will be seen that the case recorded was not altogether of the usual type. The hernia was of the congenital variety; the outer sac was formed by a bulging in the tendinous portion of the diaphragm and was on the right side in spite of the presence of the liver.

I am indebted to Dr. Eustace Smith for permission to publish the notes of the case.

ROYAL ALBERT HOSPITAL, DEVONPORT.

PERFORATED DUODENAL ULCER; OPERATION; RECOVERY.

(Under the care of Dr. ALONZO G. RIDER.)

FOR the notes of the case we are indebted to Mr. H. M. Major, assistant house surgeon.

The patient, a male, aged 44 years, was at 12.30 P.M. on Jan. 8th, 1904, seized with acute epigastric pain immediately after swallowing a piece of beef. He was seen by Dr. Rider at 1.30 P.M. who found him in great pain and much collapsed. There was extreme tenderness over the whole abdomen, especially in the epigastric region. Liver dulness was present. One-sixth of a grain of morphine was given and hot water bottles were applied to the feet. He was seen again at 4 P.M. when the collapse had partially passed off. The pain was much more severe and more generalised. Billious vomiting which did not relieve the pain was frequent.

Liver dulness was then indistinct and fixation of the abdominal muscles in the upper part of the abdomen was commencing. Dr. Rider ordered his immediate removal to the hospital but delay occurred and he did not arrive till 7.30 P.M.

The following history was given. The patient had suffered on and off for the past three years with pain after food and occasional vomiting. The pain, which came on at short intervals after a meal and was referred to the epigastrium and occasionally to between the shoulders, was relieved by vomiting. He had obtained considerable relief by dieting himself. There was no history of hæmatemesis but he had remarked on the very dark (tarry) appearance of his motions. There was a history of constipation for some years. For the past three weeks there had been a considerable increase in the amount of pain which persisted after vomiting. The pain was so severe at times that he had been unable to eat anything, though he managed to continue his work. On Jan. 7th when he returned from work he was unable to eat any supper and on the 8th his breakfast consisted of a couple of dry biscuits. He went to work but was in considerable pain and on returning home at mid-day had just started his dinner when the violent attack of pain commenced.

On admission he was extremely collapsed. The temperature was 97° F. The pulse was 112, thready, and at times almost imperceptible. A hypodermic injection of five minims of liquor strychninæ was given at once. The whole abdomen, especially in the upper part, was absolutely rigid. There was no abdominal distension and the percussion note was apparently normal. There was increased diminution of the liver dulness. Immediate operation was decided on and measures were taken to minimise shock.

The patient was anaesthetised by Mr. H. M. Major (chloroform and ether being used), and assisted by Mr. J. J. N. Morris the abdomen was opened by a five inch incision between the xiphisternum and umbilicus (on reaching the sub-peritoneal fat it bulged forward, giving the appearance of a knuckle of small intestine presenting in the incision). On opening the peritoneum free gas escaped as well as a small quantity of greenish turbid fluid from a pouch in the gastro-colic omentum. On drawing up the stomach into the wound a quantity of similar fluid escaped from the neighbourhood of the pylorus and on further examination a perforation four-eighths of an inch by three-eighths of an inch (the long axis being transverse) was found on the anterior surface of the first part of the duodenum. There was a considerable amount of indurated tissue surrounding the ulcer. The perforation was temporarily closed by a gauze swab and systematic sponging of the whole of the abdominal viscera was undertaken, followed by irrigation with many pints of normal saline solution. No solid pieces of food were discovered but some flakes of recent lymph were removed from the viscera in the neighbourhood of the perforation. Suturing was performed with difficulty partly on account of the friable nature of the surrounding tissue and partly owing to the depth of the intestine (it was not considered necessary to divide the right rectus). A purse-string silk suture surrounding the perforation was first passed, followed by several interrupted Lembert sutures. A quantity of saline solution was left in the peritoneal cavity and a drainage-tube was passed down to the duodenum.

The patient stood the operation well and during its performance was given a hypodermic injection of five minims of liquor strychninæ and an enema of five ounces of hot coffee and one ounce of brandy. The enema was ordered to be continued every four hours and the strychnine every two hours until toxic symptoms showed themselves. Twitchings occurring at 1 A.M. (he having then had 20 minims in five and a half hours) the injections were stopped for four hours and then three minims were given every four hours. No further trouble occurred with the injections. Four hours after his return to bed he vomited a small amount of green frothy fluid and this continued at half-hourly intervals until 8 A.M., the total amount being five ounces. After a hypodermic injection of a quarter of a grain of morphine sulphate and $\frac{1}{160}$ th of a grain of atropine sulphate he vomited once only.

On Jan. 9th the patient had a fair amount of sleep. The temperature was 98°, the pulse was 82, and the respirations were 20. The first dressings were slightly stained with serous fluid. The abdomen moved well with respiration. Nutrient enemata of white of three eggs, four ounces of peptonised milk, one ounce of raw starch, and half a drachm of salt were ordered every six hours in place of the coffee and