

the hernia, and most probably due either to reduction *en masse* or to rupture of the bowel. I favoured the latter view on account of the great pain, collapse, and extreme tenderness over the lower abdomen. I did not attempt much in the way of physical examination, for it was clear that the only chance lay in immediate operation.

The patient being under ether anæsthesia I made an incision over the inguinal canal, divided the external abdominal ring, and exposed a hernia sac which occupied the usual position. On the sac being opened a quantity of gas and fluid of a greyish-green colour gushed out from amongst coils of small intestine. The bubbles of gas escaped with a noise and the fluid continued to flow. It was thus obvious that the intestine had perforated, but as the escaping fluid was not offensive and was of a greenish colour, and the coils of small intestine which had been imprisoned in the sac, though inflamed, showed no signs of strangulation, I at once realised that I had made a mistake, and that the hernia had nothing whatever to do with the state of affairs, which was almost certainly due to a perforation of the duodenum. I reduced the intestines against the escaping fluid, covered the wound with a large gauze pad, and opened the abdomen to the right of the middle line from above to a little below the level of the umbilicus. A great quantity of green-coloured fluid poured out, together with bubbles of gas. After baling out several pints of this fluid I was able to locate the stomach, and on pulling it out of the wound was able to see, and to demonstrate to others, a perforation about half an inch long and a quarter of an inch broad on the anterior surface of the first part of the duodenum. I closed the hole with several silk sutures. It was at times difficult to see what I was doing, because in spite of constant mopping the fluid collected again so rapidly as completely to cover the field of operation. The fluid which re-accumulated and so embarrassed us came from other parts of the abdominal cavity, for it was interesting to notice that none escaped through the hole in the duodenum. I made no further attempt to get rid of the fluid which still remained, and closed completely the abdominal and inguinal incisions. During this time Mr. E. S. Miller, my house surgeon, exposed and injected into the basilic vein a pint and a half of saline solution together with some adrenalin.

At the close of the operation the condition of the patient was very bad indeed, though not absolutely hopeless, for his response to the saline injection encouraged us. However, though he regained consciousness he never thoroughly rallied, and died ten hours later.

I believe it was Sir William Gowers who said, "It is easy to be wise after the event, but difficult to be wiser." That expresses my present position. As the man told his story I concluded that something had gone wrong with his hernia, and when I saw the rigid abdomen and the full and discoloured scrotum, both of which were extremely tender, my diagnosis appeared justified. Had I suspected perforation of the duodenum I might have obtained from the patient sufficient evidence to make a correct diagnosis, but my mind was fixed on the hernia trouble, for everything seemed to point so clearly in that direction. If I had to deal with a similar combination of circumstances I would most probably act in the same way, which perhaps is the wise way, but still there is a wiser way.

Liverpool.

DEATH UNDER AN ANÆSTHETIC (C₂E₃).

By D. J. MUNRO, M.B., B.S. LOND., &c.,

ANÆSTHETIST TO METROPOLITAN EAR AND LONDON THROAT HOSPITALS.

THE patient was a man, aged 68, who had suffered for about 30 hours from acute abdominal symptoms, correctly diagnosed by his medical attendant as intestinal obstruction. His temperature soon after the onset was 101° F., but it fell in 24 hours to 98°, while his pulse-rate rose to 124. He did not vomit, but was enormously distended, so that his rapid laboured breathing was accomplished by forcible movements of the upper part of the thorax only. He was slightly cyanosed and the heart sounds were weak. He was a short man but very bulky. The use of spinal analgesia being contra-indicated by the height of the meteorismic paralysis, it remained to select an inhalation method, and since his dyspnoea put ether entirely out of court, while the heart's action seemed too

weak for chloroform, the administration of C.E. mixture (C₂E₃) was begun. Lavage of the stomach was discussed and negatived (since he had not been sick), because his condition was so bad that its depressing effect was feared. The anæsthetic was given from a fine-nozzled graduated drop-bottle on a flannel Tyrrell's mask. After 10 minutes, during which time 2 drachms were used, the operation was begun. Pupils medium-sized, and light and lid reflexes present. It required a search of some 15 minutes amongst engorged, distended intestines and fat-loaded omentum to find and deal with the constricting band. During this period the flannel mask was replaced by MacCardie's inhaler in order to leave one hand free for emergencies. Owing to the temperature of the theatre, which was above 70°, it was necessary to recharge the sponge rather frequently, but the additions never exceeded one drachm at a time, and the inhaler was not closely applied. Another five minutes were expended in exploring the abdomen for other lesions, and then the stitches were introduced, the anæsthetic being stopped when a counter-incision for drainage was made. Altogether 1½ ounces of C.E. mixture were used in just over 30 minutes. At this point the corneal reflex was present, the pupils were "pin-point," the pulse was fairly good, rate about 80, and breathing was unchanged (i.e., short, with inspiratory stertor, and chin jerking downwards a little with each breath). Without any warning or change of any kind the breathing stopped, and with it the radial pulse. The mouth was opened and found full of fluid stomach-contents, which was rapidly sponged out, the tongue drawn forward, and artificial respiration and heart massage through the abdominal wound applied. An injection of 10 minims of adrenalin was made into the pericardium. No response being made by either respiratory centre or heart, resuscitative measures were abandoned after 20 minutes, when the intra-ocular tension was found to have fallen. Tracheotomy was not performed (a needless mutilation) because the finger encountered no foreign body in the larynx, and because not a single respiratory movement came in response to any measure. The gastric contents continued to well up into the pharynx in large quantity, and a large liquid motion passed per anum.

The case was at once reported to the coroner, who decided that no inquiry was necessary. It seems certain, in view of the two facts—(1) active peristalsis in both directions supervening on liberation of the constricted bowel, and (2) extremely restricted respiratory movements—that the result would have been the same even had the patient been conscious and able to cough. The entrance of even a little vomited matter into the trachea was enough to supply the little extra strain which the embarrassed and probably fatty heart was unable to bear.

London, S.W.

A CASE OF LYMPHADENOMA TERMINATING WITH MENINGISMUS.

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THE patient, a boy aged 9, was sent to the Westminster Hospital on May 28th, 1910, by Dr. A. J. Ambrose of Clapham Common, with a diagnosis of lymphadenoma and acute meningitis, and was admitted under Dr. R. G. Hebb.

The following history was obtained from the father. In 1906 a large swelling appeared suddenly in the left side of the neck; after a time it subsided to some extent, but early in 1907 it began to enlarge and to extend. In February, 1907, the glands were removed at another hospital from the left side of the neck and were thought to be tuberculous. About six months later they recurred in both sides of the neck and in the axillæ; they disappeared entirely for a short time on three occasions. Three months before admission the boy had an attack of vomiting; he was then "strange in his behaviour," but in what respect could not be discovered. Two days before admission he awoke in the morning "strange and vacant," but was able to dress himself. During the morning he became deaf and could not articulate clearly. At tea-time he ate ravenously, and shortly afterwards he began gradually to become unconscious. He was attended by Dr. Ambrose.

The patient's state on admission was briefly as follows. He was a well-nourished child; his face was flushed, his