the abdomen was noticed to be rather distended, and an area of dullness was found in the right flank continuous with the liver dullness. No tumour could be palpated. A diagnosis of haemorrhage into the peritoneum was made, possibly from some abdominal tumour. At 3.30 p.m. the child died.

Post-mortem Examination.—This was performed about 9 p.m. on the same day. The thoracic viscera appeared normal, but there was very little blood in the heart or great vessels. Through the right dome of the diaphragm a dark mass could be seen. On opening the abdomen about 6 oz. of free blood and blood clot were found, mostly in the right flank. The right lobe of the liver was dark from blood effused under the capsule, which was stripped up over an area extending above into the diaphragmatic surface of the liver, and in front to within about three-quarters of an inch of the falciform ligament. From a minute perforation on the anterior aspect of the capsule blood was still oozing. On cutting across this area a deep sulcus was seen on the anterior surface, running from above downwards and slightly inwards, about 2½ inches in length. To the right of this a dark area, roughly ovoid, sharply demarcated from the liver, was made out. This area was situated in the right lobe, and extended into the cystal surface in front, and slightly on to the abdominal aspect beneath. It measured about 1½ inches across and about 2½ inches from above downwards. The liver weighed 243.06 grams. The remaining organs appeared normal.

Microscopical Examination of the Liver.—There was congestion and marked fatty change. An area of haemorrhage showed intermingled strands of fibrous tissue and a boundary of compressed haemorrhagic and fibroid liver tissue. This boundary showed in parts a leucocytic infiltration, and throughout the haemorrhagic area the leucocytes appeared to be increased, and were for the most part mononuclear in type. There was some early organization of the blood clot which would correspond with the period—five days—between the birth and death of the infant. The appearances suggested that the haemorrhage occurred at birth from trauma.

There can be very little doubt that the fissure found in the liver was a laceration which probably occurred during birth, although the fact of labour having been easy and normal makes it rather difficult to understand how it occurred. Holt states that small haemorrhages are not uncommon upon the surface of any of the viscera covered by peritoneum, and that intraperitoneal haemorrhages are rare, but may be very extensive, amounting to six or eight ounces, as in the present instance. Small surface haemorrhages of the liver, he states, are not infrequent. Occasionally one of considerable size occurs, separating the peritoneal covering and forming a tumour, generally upon the superior surface. Such lacerations may be produced during labour, and a slow accumulation of blood may take place beneath the capsule, death resulting from rupture into the peritoneal cavity.

RECOVERY FROM TUBAL DEAFNESS CAUSED BY A SARCOMA.

BY

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AND

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THE following case is one of removal from the soft palate of a sarcoma which resembled clinically the type of endothelioma found in this situation.¹ As a result of relief of pressure on the Eustachian tube the patient recovered from unilateral deafness of eight years' standing.

An active man engaged in responsible affairs became deaf in the right ear at the age of 35 and noticed a swelling at the back of the mouth three years later. At the age of 40 he could only hear ordinary conversation close to the right ear. The swelling grew larger internally and began to project outwards behind the angle of the jaw. The voice had a nasal intonation, but there was no interference with breathing or swallowing.

The smooth yielding tumour occupied the right side of the soft palate and nasopharynx, the tonsil being displaced medially, and was slightly movable on bimanual palpation. The drumhead of the right ear was indrawn and with the C 256 tuning-fork bone conduction was relatively increased. With the stem of the vibrating fork on the vertex the sound was heard loudly in the right ear; by air conduction C 1024 was heard well, C 128 not at all. The left ear was normal. Systemic examination, including a blood count, revealed nothing abnormal.

Operation.

General anaesthesia was induced with chloroform and continued through a laryngotomy tube. The tumour, which extended deeply into the pterygo-maxillary and submaxillary regions, and was

surrounded with a false capsule, was dissected away. The walls of the cavity were coagulated by diathermy. A week later a tube of radium emanation was placed in the depth of the cavity and another towards the root of the tongue; these were secured in position for twenty-four hours by packing.

On section the tumour proved to be a spindle-celled sarcoma; portions of muscular tissue removed were seen to be invaded.

After-Treatment.

As soon as the sloughs had separated the patient was referred to Dr. William Mitchell for x-ray treatment, and five exposures were given. Three months later the drum was less retracted, and on inspection with Hay's pharyngoscope the Eustachian orifice appeared normal. After one or two inflations with the catheter the hearing for the watch and voice was completely restored. Rinne's test was positive, though air conduction was still a few seconds less in excess of air conduction than on the left side. Four years after the operation there was no sign of recurrence, and the hearing was normal.

Appearance of the Tumour.

What was the pathological condition of the right ear from which the patient recovered so promptly when the patency of the Eustachian tube was restored? In three cases of obliteration of the Eustachian tube by malignant tumours of the nasopharynx Brock found serous exudation into the tympanic cavity and its adnexa, attributable to hydrops *ex vacuo* rather than to inflammation. Karl Beck of Heidelberg, experimenting with dogs, closed the tube with wooden plugs, or, as was found more effective, with the thermo-cautery. After killing the animals, microscopic examination revealed hypertrophy and cellular infiltration of the mucous membrane, some bony thickening, and a sterile exudate containing polymorphs and lymphocytes. According to Habermann² this condition differs from chronic catarrh of the middle ear, in which proliferative changes in the tympanic mucosa are identical with those of hypertrophic rhinitis. In our case, in which closure of the Eustachian tube was probably gradual and possibly intermittent, there were no subjective symptoms of fluid in the tympanic cavity, nor could any fluid exudate be seen through the drum.

Only by the finest discrimination between the forms of chronic deafness can we hope to judge beforehand whether operations on the nose and throat will restore hearing.

REFERENCES.

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CONGENITAL OCCLUSION OF DUODENUM.

BY

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DR. H. C. CAMERON, in the Lumleian Lectures, delivered last year,¹ discussed in the first lecture vomiting in infancy due to obstruction from developmental defect in the upper alimentary tract. The following case is reported because, as Cameron says, "the diagnosis, supported by a characteristic radiographic appearance, is often not difficult, and because, sometimes at least, we may hope to save life by means of a timely operation following upon early diagnosis." The condition, however, appears to be very rare. Only one case² has been reported in this infirmary, with about 3,500 admissions annually, in nine years.

A male infant, aged 5 days, was admitted to Booth Hall Infirmary, Manchester, on January 15th, 1926. There was a history of vomiting everything taken by the mouth since birth. The patient was the weaker and smaller of uniovular twins and weighed 4½ lb. at birth. The pregnancy and labour were normal and the parents and their children were healthy.

On examination the heart and lungs were found normal. The tongue and pharynx were red and congested. The abdomen was not distended, but some fullness was seen and felt in the epigastric region. No intestinal peristaltic waves were seen; there was no jaundice. The anus and rectum were normal. X-ray examination of the stomach was not done.

Vomiting persisted after admission in spite of medical treatment. After a feed, or sometimes not until after two or three feeds, food welled up into the mouth in large quantity. It was composed of curdled milk and was not bile- or blood-stained. The capacity of the stomach was very great, and gastric "wash-outs" returned unstained.

A, Pyloric valve. B, First part of duodenum. C, Common bile duct. D, Fibrous band. E, Mass of lymphoid tissue. F, Remainder of duodenum. G, Small intestine. H, Pancreas.

The stools, which were passed with ease, were composed of meconium, glairy mucus, and bile.

The nature of the lesion was suspected, and surgical treatment (gastro- or duodeno-enterostomy) was considered, but the child had already undergone five days' starvation, and was in a condition of dehydration and inanition. It was therefore put in an incubator and rectal and subcutaneous salines given every four hours. Two days later (seventh day of life) it died, effortless vomiting persisting until the end.

Post-mortem Examination.

The liver reached to just above the umbilicus, and the lower border of the stomach nearly to the symphysis pubis. The gall bladder was distended and the part of the stomach wall in contact with it was bile-stained. The stomach was greatly dilated and contained curdled milk. The pyloric valve was fully dilated.

The first part of the duodenum ended in a dilated, dome-shaped diverticulum. The occluded end was firmly connected by a strong fibrous band to the head of the pancreas. The remainder of the duodenum (second and third parts) began, at the upper end, as a bulbous dilatation, into which, almost at right angles, ran the common bile duct. A firm, nodular mass in the wall of the gut near the entrance of the duct proved, on histological examination, to be a mass of lymphoid tissue. A band, composed entirely of fibrous tissue, stretched from the occluded end of the first part of the duodenum to the head of the pancreas. Midway in its course it enveloped the bile duct and remainder of the duodenum. The pancreatic duct, although not traced, did not enter the gut in the region of the bile duct.

The remaining organs in the body appeared normal.

Early diagnosis is essential in these cases. Unfortunately, in the case recorded more than five days elapsed before the child was brought to hospital and a diagnosis made.

I have to thank Dr. J. D'Ewart, medical superintendent of the infirmary, and Mr. Robert Ollerenshaw, consulting surgeon to the Manchester Union, for permission to publish these notes. I have also to thank Dr. G. D. Dawson, pathologist to the Manchester Union, for the histological examination and identification of the various parts removed at the post-mortem examination.

REFERENCES.

¹ BRITISH MEDICAL JOURNAL, April 25th, 1925, p. 765 et seq. ² Ibid., November 28th, 1925, p. 1005.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SPONTANEOUS REDUCTION OF ACUTE INTUSSUSCEPTION.

SPONTANEOUS reduction of an intussusception and the verification of the diagnosis by laparotomy is of sufficiently uncommon occurrence to merit record.

A male child, aged 1 year and 6 months, was seized at 1.30 p.m. on March 3rd, 1926, with acute abdominal pain. It vomited on four occasions during the next four hours, and a motion passed was blood-stained. The child had always been constipated, but there was no history of previous attacks.

The child when first seen at 6 p.m. was suffering from agonizing abdominal pain. Across the abdomen, just below the umbilicus, a well marked tumour was present, and examination by the rectum revealed typical red-currant jelly.

The patient was admitted to the infirmary at 7.30 p.m.; it was screaming, and the legs were drawn up to the abdomen. A tumour was palpable below the umbilicus, and on rectal examination the glove was blood-stained, but no typical red-currant jelly was found.

Operation was arranged for 9 p.m., but soon after the last examination the patient fell asleep, and remained asleep until 8.45 p.m. When seen at 9 p.m. it was quiet and contented and abdominal palpation and rectal examination were completely negative. No enemata had been given, but in view of the

definite findings at 6 and 7.30 p.m. it was decided to perform laparotomy.

The abdomen was opened by a paramedian incision. The small intestine for a length of 5 to 6 in. from the ileo-caecal valve was markedly thickened, congested, and rather distended, with haemorrhagic spots present at various points on the peritoneal surface. The thickening and congestion were most marked in the last 1 to 2 in. of the ileum, and the proximal portion of the intestine implicated presented a ring-like appearance as if one part of the intestine was invaginated slightly into the next part. The gut was quite viable, but the mesentery was congested, inflamed, and swollen, and the glands in the mesentery were enlarged. The "dimple" characteristic of the reduced intussusception was present on the lower outer wall of the caecum. The abdomen was closed, and on the next day one blood-stained motion was passed. On March 21st the patient was discharged after an uninterrupted convalescence.

Presumably, had no operation been performed this case would have been labelled "gastro-enteritis" or a vague "food poisoning," and one can only conjecture how many more such cases have been likewise labelled. In this case the definite physical signs at 6 and 7.30 p.m. made one chary of leaving well alone when the child was again examined at 9 p.m.

I am indebted to Mr. K. M. Duncan, F.R.C.S., for permission to publish this case.

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CYSTIC DEGENERATION OF A UTERINE FIBROID WITH PARTIAL EXTRUSION.

THE patient whose case is recorded below was brought to the Royal Salop Infirmary, Shrewsbury, in a condition so serious that no detailed history could be obtained.

A woman, aged 46, was admitted to the infirmary suffering severely from shock, with signs of haemorrhage. She stated, that, having been much troubled by "pains in the stomach and constipation," she had taken an aperient the previous evening, and on waking during the early hours of the morning had found her "bowels lying out on the bed."

A large mass of what at first appeared to be decomposed coils of intestine was seen lying between her thighs. She was immediately taken to the theatre and an anaesthetic administered. The prolapse, which weighed about 4 lb., consisted of a horribly putrid, grey, semisolid mass, held together by interlacing fibrous bands. There was very little haemorrhage, and no blood vessels could be seen. The external portion of the prolapse was clamped and excised. It was then seen that it had come down through the vagina, which was distended by a continuation of the growth. On introducing the hand into the vagina alongside the prolapse, the cervix was found to be dilated sufficiently to enable the hand to be passed into the uterus. The interior of the uterus was filled with a soft friable growth which was densely adherent to the uterine walls by tough fibrous bands. The uterus formed part of a hard rounded tumour filling the pelvis and extending up to four inches above the umbilicus. At the upper margin of the tumour a pedunculated fibroid could be felt.

It was decided to perform hysterectomy. A considerable amount of blood clot and offensive serum was found lying among the coils of intestine; this was seen to be coming from the right Fallopian tube, which was distended and had ruptured. The uterus was pale and oedematous. In front it was adherent in its upper part to the parietal peritoneum by recent adhesions and to the omentum and transverse colon by much firmer adhesions. The omentum was clamped and tied off, but it was necessary to dissect a flap of peritoneum off the uterus to free the colon. This flap was then folded over on itself and sutured, thus covering in the raw surface. The veins of the broad ligament were very dilated, especially on the left side.

Owing to the uterus being firmly fixed in the pelvis some difficulty was experienced in securing the uterine vessels. This was overcome by working down the broad ligament on one side, dividing the cervix, and securing the broad ligament on the opposite side from below upwards (Kelly's method). The peritoneal cavity was drained by a large tube brought out through the vagina.

Examination of the uterus showed that it was the site of numerous fibroids. The small pedunculated fibroid situated on the fundus had undergone calcareous degeneration. One large interstitial fibroid showed typical red hepatization. The main portion of the growth, however, consisted of a large submucous fibroid, which had undergone cystic degeneration. This filled the uterine cavity, and had sloughed; it was this sloughing mass that had been expelled from the uterus.

The pathologist reported that sections taken from the uterine wall, and the fibroids, had the appearance of a fibromyoma undergoing necrosis, and that there was no evidence of any malignant change.

I was afterwards able to get a more detailed history. The patient had had a child nineteen years previously, but no further pregnancies. Menstruation had been regular, but during the last four years had been excessive, lasting eight days. She stated that thirteen months ago she passed a "fleshy lump." She had noticed enlargement of the abdomen for two years, but had suffered no inconvenience until a month before admission, when she was much troubled by backache and abdominal pain accom-