which haemoglobin had been added, a medium I use altogether for the isolation of the gonococcus.

No gonococcus-like organisms grew on any of the media except the latter, and on this there developed a number of characteristic colonies, which on staining showed the usual characters of this organism. Subcultures of the pure growth were made on the ascitic media, as well as on various others; only on the ascitic agar did any growth occur, and only a limited number of the colonies showed ability or desire to grow in subculture. Even those which did grow in subculture were very sensitive to their surroundings, and the one pure culture which I kept for stock, now in its sixty-fifth transfer, needs to be transferred every day or it will die. I have not been able to make it grow on any modification, even, of the original medium.

TETANY IN ACUTE SUPPURATIVE APPENDICITIS IN AN ADULT.

BY

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THE condition of tetany occurring in adults is not altogether common. Perhaps the commonest conditions with which it is associated are gastro-intestinal disorders (gastritis, dilatation of the stomach, and intestinal parasites), pregnancy, and operations upon the thyroid gland; sometimes it complicates the infectious fevers, notably typhoid. Less rarely still is it associated with certain poisons taken into the system, such poisons being lead, alcohol, and ergot. It is said to complicate cerebral and cerebellar tumour, but this must be extremely rare. Tetany associated with surgical operation upon the thyroid gland is a very rare condition, and I cannot recall a case out of a large number I have seen operated upon. It has been said that tetany occurring in this last named condition is due to removal of the parathyroid bodies, and experimental work seems to lend support to this statement. The following is a case of tetany associated with acute suppurative appendicitis.

A. C., aged 35, married, was admitted to the Bradford Royal Infirmary on December 19th, 1912, complaining of acute abdominal pain. The onset was very sudden, and she had vomited once a bile-stained fluid. She was admitted thirty-six hours after the onset of the pain.

History.

We found out that four years ago she had been seized suddenly with acute abdominal pain, not so severe as the present attack, but she gradually got better without operation. She was seen two years later by Dr. Manknell, of Bradford, and her symptoms resembled those of gastric ulcer. She had another attack between this last and her present one, and again her symptoms suggested a gastric origin. She had suffered pain after food, constipation, and lassitude, and she was never well for any length of time. She had never had haematemesis, jaundice, or malaena. The urine was dark, but contained no extraneous matter.

Condition on Admission.

The temperature was 100°, pulse 112 and regular, respirations 24. The abdomen moved only slightly on respiration, and this on the left side only. There was a rigidity and general tenderness all over the right upper and lower abdominal quadrants. Pain was noticed on deep pressure in the right loin. The right flank was dull, the liver dullness was normal. On rectal examination, thickening and tenderness was found high up on the right side. The condition of acute appendicitis was diagnosed.

Two hours after admission the patient developed marked and typical tetany in both hands, and the pulse rose to 120. Her general condition suddenly became grave, and an immediate laparotomy was performed. She had never had tetany before.

Operation.

By means of the right rectus incision the abdomen was opened, and an appendix abscess containing about 2 oz. of stinking pus was evacuated. The appendix was retrocaecal, and its tip was bound down to the lower pole of the right kidney. There was a perforation about 1 in. from the end, and a concretion had escaped. The appendix was removed with some difficulty, and a large drainage tube inserted.

After-History.

The patient made an uneventful recovery, and left the hospital on January 5th, 1913. She had no return of the tetany while in hospital, and I hear from Dr. Manknell that she is now very well, and has been bothered in no way since the operation.

This case is interesting, as it is the only one I have been able to find in which tetany was associated with acute

appendicitis. When the tetany developed I was naturally prompted to reconsider the diagnosis and to think that after all it might be some gastric lesion. Unfortunately, owing to the nature of the operation, I was unable to look at the stomach; but seeing that this patient has had no gastric symptoms since, that she has very much improved on her condition prior to operation, and has put on weight and enjoyed and felt ready for food, it is possible that the stomach itself was never at any time at fault. In view of the excellent exposition of this truth by Sir Berkeley Moynihan, whose words on appendix dyspepsia we are all acquainted with, and which surgeons must by now have confirmed, I think it is quite reasonable to attribute the condition of tetany in this case to a diseased appendix. How the tetany was produced, whether it was toxic or reflex, I am not prepared to say.

This case may perchance shed some light on other cases of tetany which may have been attributed to dyspepsia, gastritis, or other gastro-intestinal conditions, and in such cases a careful inquiry into the history and an examination to exclude the presence of a diseased appendix should be thought about.

ADRENALIN IN CHLOROFORM ANAESTHESIA.

BY

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THE following case seems to be worth publishing if only to emphasize a very real danger which is perhaps not as widely recognized as it should be.

The patient was a male aged 26, a well-developed and healthy man. The heart sounds were normal; the urine contained nothing abnormal. Operation for deflected nasal septum was decided upon.

Anaesthesia was induced by chloroform given upon a Skinner's mask, the induction taking about seven minutes and being unaccompanied by struggling. The patient was transferred to the operating table, and it was decided to inject some adrenalin into the nose subcutaneously. At the time of the injection anaesthesia was light (a brisk corneal reflex being obtainable), the pulse strong, and the patient's colour good. No more chloroform was given.

About one minute after the injection the pulse suddenly became very rapid and then imperceptible; at the same time the patient's colour became leaden grey and the pupils widely dilated. About three deep gasps were taken after the pulse had failed, and then respiration ceased.

The head was at once lowered, artificial respiration performed, and 1 c.cm. of pituitary extract injected hypodermically, and oxygen administered. Finally, an incision was made along the left costal margin and the heart was massaged through the diaphragm, but to no purpose; 5 minims of a 1 in 1,000 solution of adrenalin was used for the injection.

The nostrils had been plugged ten minutes before the induction of anaesthesia with a solution containing cocaine (10 per cent.) and adrenalin.

At the *post-mortem* examination nothing abnormal was found in any of the organs.

In the *BRITISH MEDICAL JOURNAL* (September 14th, 1912) Dr. A. Goodman Levy published the results of experiments he had made upon cats under chloroform anaesthesia with injections of adrenalin. He found that when the anaesthesia was light after the injection of small doses of adrenalin into a vein, a definite series of events followed: the heart first beat more rapidly and forcibly, but then inco-ordinately, and finally ceased, the effect of the injection being to bring about fibrillation of the ventricles. Under deep chloroform anaesthesia the effect was much less marked, and passed off after a few moments, the heart again beating regularly. Under ether anaesthesia no effect was produced. The case quoted above seems to correspond exactly clinically with Dr. Levy's experimental work.

In the *Proceedings of the Royal Society of Medicine* (February 3rd, 1911) Dr. J. Blumfeld describes a case of sudden collapse following the injection of 6 minims of a 1 in 4,000 solution of adrenalin in a patient anaesthetized with C.E. mixture. In this case, however, the patient recovered after the employment of remedial measures.

If an injection of adrenalin be made just before an anaesthetic is given, no bad results occur. It is difficult to understand the fact that when chloroform anaesthesia is deep the danger of injecting adrenalin is less than when light; unfortunately, in those operations in which adrenalin is most often used for haemostatic purposes—those about the nose and throat—it is a light anaesthesia that is desirable, and the anaesthetic chosen is usually chloroform.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

LONG INTERVAL BETWEEN BIRTH OF TWINS.

A SOMEWHAT unusual case of twins occurred in the practice of Dr. Macklin and myself, and seems of sufficient interest to record.

A multipara had a living male child on February 24th, the labour being quite straightforward. Another child could be felt with the vertex on the left and the child's back to the mother's left front. She had severe after-pains at half-hourly intervals for ten hours, and after that at longer intervals, until they ceased in twenty-four hours after the birth of the first child. The lochia was almost absent. She was allowed up at the end of a fortnight, and went about performing her household duties until April 4th, when labour pains came on again and she was delivered of a living female child. The first child weighed 6 lb. and the second 6½ lb., both being small but well nourished, and both are doing well now.

The point of interest is the long interval between the two births, nearly six weeks, and the fact that though the pains after the birth of the first child were strong and fairly frequent they failed to dislodge the second.

She has had four other children, single births, and one miscarriage.

Whalley.

J. M. POSTLETHWAITE.

STRANGULATED HERNIA IN AN INFANT.

THE cases recorded last November by Dr. Nichols and Mr. Dent induce me to record a case that occurred in my own practice some two years ago.

The patient was an infant aged 6 weeks at the Jenny Lind Children's Hospital, and I was summoned to it late one evening because the hernia—one of the strangulated inguinal variety—had resisted all attempts at reduction.

Chloroform having been administered, I found that the gut could not be reduced by gentle taxis, and as previous attempts had been made, I operated at once. On opening the sac, about a teaspoonful of turbid serum escaped. The bowel was intensely injected and of a purple colour. The neck of the sac being divided, the gut was easily reduced, and the opportunity was taken to do a radical cure, two buried sutures being used. The child made a good recovery.

I had never previously seen a case of strangulation in so young an infant. During nearly twenty years' work on the staff of the Children's Hospital here I had never seen a case of strangulated hernia in so young an infant, nor did I while house-surgeon at the Manchester Children's Hospital under Professor G. A. Wright. The latter in his book *Diseases of Children* (Ashby and Wright) does, however, mention cases as young as 3 weeks (Halsewood) and 4 weeks (Maunder), and Mr. Rushton Parker, in the *BRITISH MEDICAL JOURNAL* of October 26th, 1912, quoting from Mr. Howard Marsh's article, gives cases as young as 8 days and upwards to 13 years.

I note that Mr. Parker, in his case of an infant 28 days old, used the original strict Listerian dressing, which I also adopted in my case, deeming it safer, but have latterly regularly used the "open" method of Mr. Stiles—that is, no dressings. I have never punctured the scrotal swelling, as Mr. Parker did, although I have on several occasions thought of doing so, the swelling having eventually subsided.

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SUGGESTED OPERATION FOR RELIEF OF PROSTATIC HYPERTROPHY.

A CORRESPONDENT (p. 804) has raised a point which has interested me much during the last few years, although I have not had the opportunity to put it to a practical test.

In 1900 I devised and practised an operation for the cure of cystocele in the female, which is mentioned in Dr. Inglis Parsons's book on the treatment of *Uterine Prolapse* (page 52). I have since performed the operation in many cases, and always with success.

The results have been so good that I have often wished to put to the test the effect of a similar operation in an early case of enlargement of the prostate gland. The conditions are very similar, for how much of the abnormal growth of the prostate may be due to the infiltration of its substance from the decomposing urine in the residual sac which lies behind and below it? Could an arrest be effected by the obliteration of this sac and its load of bacteria?

The operation for cystocele in the female is simple and safe. The recti are divided in the middle line until the distended bladder is exposed, as in the suprapubic operation for calculus. The finger is then gently swept round the upper surface of the bladder, and detaches it from its abdominal relations until the upper surface of the distended bladder is freed. The contents of the bladder are then allowed to escape, and the loose upper part is drawn down and puckered with a stitch which is lightly tied, the ends being left long. Each long end is threaded in a needle, and is passed through its corresponding rectus as near as possible to its insertion on the pubis, and is then made to serve in closing the lower end of the divided muscles. Other stitches close the upper part of the muscle and the skin wound. For some days afterwards the urine is drawn off by the catheter every three hours. At the end of a fortnight it will be found that the residual urine is almost nil. I distend the bladder with a boric acid solution, and give an assistant the charge of the meatus urinarius, which he controls with his finger until he is told to release it, after the upper portion of the bladder has been freed from its former site.

It would be more easy to control the escape of the fluid used to distend the bladder in the male.

Guernsey.

J. AIKMAN, M.D., C.M.Glasg.

A BIMANUAL METHOD OF RECTIFYING A FACE PRESENTATION.

ON March 11th I was called to a woman in labour with her fourth child. Previous labours had been difficult, the pelvis being small and the children rather large.

The face was presenting, the chin being left anterior. The membranes were ruptured and the os uteri partly dilated, but though the face had just engaged the brim, the head was not coming down into the pelvis. It seemed quite obviously a case for podalic version as recommended by the books. As, however, the nearest help was five miles away and I did not at all relish the prospect of failing to deliver an after-coming head, I decided first to make what effort I could to turn the presentation into a vertex.

The patient being in the left lateral position across the bed, I inserted the left hand into the uterus, grasped the head, and rotated the chin well to the right so as to bring the occiput to the left, in order to enable me to make use of both hands to advantage. The left thumb was then pressed upwards on the chin, and with the fingers hooked over the occiput I tried to draw it down; the palm steadied the head, whilst with the right fist pressure was made downwards on the occiput through the abdominal wall. The manoeuvre proved quite successful, adequate flexion being quickly secured. The occiput was then rotated back again and round to the front, the blades of the forceps were accurately adjusted to the sides of the head, and delivery was effected after much pulling.

I am quite satisfied that I should have found very much greater difficulty if I had performed version, and I shall not hesitate to use this method of rectification again if and when occasion serves.

Harston, Cambridge.

W. J. YOUNG, M.R.C.S., L.R.C.P.