have supposed, the piles will be sufficiently shrunken and dried and painless by the morning for the daily pad to be dispensed with, unless the misfortune alluded to occurs. Meanwhile, those of the piles normally inside, but which prolapse on defaecation, are coming into contact with the calamine before their gradual return during the night, and, subjected to its astringent action, are becoming smaller and less sensitive.

After a further lapse of two or three weeks the patient will find that, although there may be some prolapse of the internal piles on defaecation, this is so readily reduced, or reduces itself on attaining the recumbent position, that he can begin to leave off the pad at night, unless he has been either too constipated or too relaxed. He is then in a fair way to being cured. He must always have his bowels moved at night, and he is wise to have calamine and a pad available. It is, in my experience, quite futile to attempt to apply the powder in any other way than that described.

The habit of a nocturnal action of the bowels, which allows the immediate assumption for many hours of the recumbent posture, will go far to prevent any further prolapse of such piles as remain inside the anus; and I believe that in this way it will ultimately cause their reduction in size; because it is the persistence of the partial prolapse which normally occurs in defaecation which has gone far to bring them to their condition at the beginning of treatment. I assume that the haemorrhoids are not due to any direct obstruction to the portal circulation or to any local cause such as pregnancy or growth; and that exercise and limited diet will be advised.

With this alternative to operation—an alternative which is inexpensive, which entails no danger, no interference with business, and which is likely to be permanently successful—I think I am justified in my heretical proposition that operation is usually unnecessary and rarely justifiable. The remedy is almost as simple as dipping seven times in Jordan; and for that reason, doubtless, there will be those who prefer that the surgeon should "strike his hand over the place" by way of operation. Likewise, there will be the advocates of Abana and Pharpar in the shape of ointments and lotions. None the less, I hope there will be others who will emulate Naaman and decide to give this method a trial, for I have had such excellent results with it in the past three years that personally I shall advise operation only as the last resort.

RESECTION OF INTESTINE FOR ACUTE INTUSSUSCEPTION: TWO CASES OF RECOVERY.

BY

A. H. SOUTHAM, M.A., M.Ch.Oxon., F.R.C.S.Eng.,
RESIDENT SURGICAL OFFICER, MANCHESTER ROYAL INFIRMARY;

AND

C. H. CRAWSHAW, B.Ch.Camb., F.R.C.S.Eng.,
LATE ASSISTANT RESIDENT SURGICAL OFFICER, MANCHESTER ROYAL
INFIRMARY.

THE published results of enterectomy in cases of acute intussusception in infants show such a high mortality that the following cases, each of a rather unusual type, may be of interest.

Rowlands and Turner¹ quote Gibson, who says that in his collection of 1,000 cases he found only one case of recovery after resection for this condition. In an earlier collection of 239 cases there was no recovery from irreducible intussusception in a patient under seven years. Moynihan² quotes A. E. J. Barker, who says he had never seen a recovery after resection in a gangrenous case, and never expected to see it. Fagge² reported 5 cases that were irreducible and all were fatal.

CASE I.

John C., aged 3 years, was admitted to the Manchester Royal Infirmary on December 11th, 1919. His mother stated that he had not been well for a week. He had been vomiting continually, and his bowels had not been moved for five or six days. No blood had been passed as far as she knew. The child looked ill, the temperature was subnormal and the pulse 130. The abdomen was very distended, and no tumour was palpable. On rectal examination a little blood and mucus remained on the finger-stall.

A diagnosis of intussusception was made, and laparotomy immediately carried out. Owing to the child's poor condition,

Mr. K. B. Pinson kindly gave gas and oxygen anaesthesia. The abdomen was opened by a right rectus incision, and a tumour, extending to the splenic flexure, was discovered. This was reduced easily at first by expression. After the gut had been reduced through the ileo-caecal valve, it was seen to be a double intussusception, an ileo-caecal being superimposed upon an enteric intussusception. The terminal portion of the ileum was found to be in a bad condition; it was irreducible, and there were several gangrenous patches which had perforated during the attempt at reduction. It was therefore decided to resect this portion of the ileum. This was rapidly carried out, and an end-to-end anastomosis performed between the cut ends, two layers of linen thread being used for the suture line. The portion of gut excised measured 10 in., and there were five gangrenous patches involving all the coats present. The abdominal wall was closed with through-and-through sutures of silkworm gut. The operation lasted twenty-five minutes.

Post-anaesthetic vomiting was completely absent and the child was able to take fluids immediately, shock being very little in evidence. The bowels moved the following day and each day subsequently.

Apart from a little sepsis in the wound the child made an uninterrupted recovery, and was discharged from hospital on January 13th, 1920. We have seen the boy several times since; he is in excellent health, and has had no further abdominal trouble.

CASE II.

M. R., aged 6 months, was admitted to the Manchester Royal Infirmary on December 13th, 1919. She was thin, cold, clammy and collapsed; about 7 in. of intestine carefully wrapped in newspaper protruded from the anus. The diagnosis from prolapse was not difficult, and there had been symptoms of intussusception for about twelve hours before the intestine had appeared externally.

When first seen the last two or three inches of protruded gut were very oedematous, dark purple and gangrenous. The swelling caused by the oedema quite prevented the gut from being returned through the anus, consequently the only procedure possible was to resect the intestine externally and push back the stump. This was done in the manner often known as Jessett's operation, with this difference, there being no ensheathing layer, the time usually occupied in opening and closing this was saved and the operation simplified.

The gut was pulled out still further and clamped in the healthy part thus made accessible, about 2 in. from the anus and about 7 in. from the gangrenous apex. The part distal to the clamp was now removed one inch from the clamp, and the entering (inner) layer of the intussusception sutured with continuous thread to the encircling returning layer. Only one row of sutures was applied, taking up all the coats of intestine. Some difficulty was experienced with the mesentery which was between the two layers, and made a large thick mass, and also with the disparity between the diameters of the two concentric circles of intestine. The stump was now easily reducible through the anus, and was kept in position for twelve hours by a pad of gauze on a large rubber tube in the anal canal and held there by a perineal bandage. No anaesthetic was used, the patient being practically moribund and quite motionless throughout the operation.

The point of anastomosis could afterwards be felt high up on the left side with the finger in the rectum, but there was no tendency to a recurrence of the condition. There was no post-operative vomiting, fluids were administered at once and recovery was quite uneventful. The child was seen five months afterwards; she was then quite fat and apparently in perfect health.

On examination of the part removed, the ileo-caecal valve and appendix were found at the apex—that is, the intussusception was of the ileo-caecal type. About 6 in. of intussusception were resected, which corresponded roughly to the whole of the caecum, ascending colon and part of the transverse colon, with an equivalent length of included small intestine.

In both these cases the intestine was gangrenous, and an extensive resection was necessary, but complete and uneventful recoveries followed.

The successful issue was, we consider, to a great extent due to the measures taken to safeguard the patient from the effects of shock. We suggest that shock can be considerably reduced, and the outlook therefore improved, by the following expedients:

1. *Speed in operating is essential.* Everything should be ready to hand, and the closure of the laparotomy wound should be carried out by through-and-through sutures. Suture in layers is unnecessary and expensive in time.
2. *The body heat should be preserved by bandaging the child in a suit of gamgee and the theatre maintained as warm as possible.*
3. *The anaesthetic appears closely related to the amount of shock present.* In one of our cases this was minimized by using gas and oxygen, whilst in the other no anaesthetic was used.

Shock further depends on the *water-starvation* resulting from the previous vomiting and loss of fluid. In both the

above cases post-anaesthetic vomiting was entirely absent, and fluids were given and retained immediately the operation was completed. The body nutrition therefore recommenced at the earliest possible moment.

The chief difference between these two cases was that in one the abdomen was opened, whilst in the other it was not. It is suggested that the shock consequent upon opening the abdomen may be considerably reduced by employing the above methods, and the prognosis, therefore, proportionately improved.

REFERENCES.

- ¹ Rowlands and Turner, *Operations of Surgery*, 1915, vol. ii, p. 346.
² Moynihan, *Abdominal Operations*, vol. ii, p. 126.

COMPLETE HEART-BLOCK IN A CASE OF DIPHTHERIA.

BY

R. CLAYTON ALLEN, M.R.C.S., L.R.C.P., D.P.H.

THIS case, admitted under my care in the Belper Isolation Hospital, was apparently doing quite well, until the seventh day of disease, when heart-block suddenly developed.

The notes are as follows:

M. L., a girl aged 17 years, was admitted to the hospital on September 1st, 1920. She was taken ill on August 29th with a feeling of malaise and a sore throat, and the following day was seen by her doctor, who administered 4,000 units of antitoxin, followed by a further 2,000 on the following day. On admission to hospital the tonsils and uvula were seen to be covered with membrane, and the neck was much swollen. Temperature 102.6°, respirations 28, pulse 120; slight difficulty in swallowing and face very flushed; heart regular and no cardiac dilatation. Brandy $\frac{1}{2}$ oz. was given four-hourly; the throat was swabbed and sprayed two-hourly, and hot fomentations applied to the neck. Patient rapidly improved, and on the morning of September 3rd was very comfortable. Temperature 99°, respirations 20, pulse 96, when brandy was stopped; the improvement continued until 5 p.m. the following day, when the patient suddenly had a "convulsion"; marked cyanosis, and pulse became imperceptible; temperature subnormal. Brandy $\frac{1}{2}$ oz. was given and oxygen administered.

I saw the patient about 5.30 p.m., when she was breathing quietly; respirations 26, slight cyanosis; pulse 26, temperature 96.6°. There was no cardiac dilatation, and on auscultation the ventricle could be heard beating 26 per minute, whilst over the auricles could be heard muffled sounds—52 per minute. Lig. strych. miv was ordered four-hourly, and brandy $\frac{1}{2}$ oz. four-hourly; oxygen to be administered five minutes every quarter of an hour, and a mustard plaster placed over cardiac region. I saw the patient again at 8.30 p.m., when she seemed quite comfortable; still cyanosed, and the heart in the same condition as before. I saw her again at 11 p.m. in consultation with Dr. Barber of Derby.

About 1 a.m. on September 5th she had another slight convulsion, after which the patient slept until 7 a.m., when the pulse was 56, temperature 97°, respirations 18. At 10 a.m. she had a further convulsion and became more cyanosed; temperature 97°, pulse 22, respirations 18. The oxygen was still continued, and 1 c.c.m. of pituitrin was administered subcutaneously.

During the day the patient did not improve, took nourishment badly, and had incontinence of urine. A further cubic centimetre of pituitrin given at 2 p.m. The patient remained listless until 8.45 a.m. September 6th, when she vomited; this was followed by a convulsion. Temperature 96.8°, respirations 16; pulse imperceptible, but the ventricle could be heard 22 per minute, and the patient complained of acute pain over the cardiac region. Death took place at 11.20 a.m. The urine showed a marked cloud of albumin the whole time the patient was in hospital.

Note by DR. HUGH BARBER.

Myocardial poisoning is a common event in diphtheria, and may be accepted without doubt as the cause of death in this case, but from the clinical point of view it was an unusual form of heart failure.

When seen by both of us together there was little distress, the radial pulse was strong and regular, 26 beats to the minute; the heart was not dilated, the cardiac impulse was vigorous, rate 26, with clear normal sounds. Over the base of the heart muffled sounds could be heard suggesting auricular beats twice as rapid as the ventricular. It was not possible to take a jugular tracing to prove the diagnosis, but complete heart-block due to poisoning of the auriculo-ventricular bundle may, we think, be taken for granted. The case presented unusual difficulties both in treatment and prognosis.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TORSION OF THE TESTIS IN AN INFANT.

THE infant was born on February 13th, 1920, and on the 18th the nurse noticed some swelling of the right side of the scrotum. This swelling increased, and on February 21st I saw the infant, with Dr. L. Gifford Nash of Turvey, Beds. There was no pain, and the baby seemed quite well, and was taking his food. The right side of the scrotum was swollen, the skin was blue, and the superficial veins dilated. The skin was adherent to the testis, which was much swollen and tender. The cord was thickened as high as the external ring, where there appeared to be a small nodule or swelling. I diagnosed a torsion of the testis and cord, and advised operation, which was performed on February 22nd.

An incision was made into the inflamed tissues of the scrotum, the separate layers of which were indistinguishable, until the cavity of the tunica vaginalis was reached and a thick yellow fluid gushed out. The testicle, purple in colour, appeared lying at the bottom of the tunica vaginalis. The cord was tied high up in the scrotum and the testis removed. No definite torsion of the cord was seen, but it was not exposed as high as the external abdominal ring. The infant made a good recovery.

The specimen removed was sent to Mr. S. G. Shattock, at the Royal College of Surgeons, who reported: "There is intense congestion of the tunica vaginalis and tunica albuginea. On dividing the testis there are seen superficial extravasations in its substance. I think that your first impression—namely, that the condition was caused by torsion—is correct."

Since I first reported a case of torsion of the testis (BRITISH MEDICAL JOURNAL, 1891, vol. i, p. 1226) many cases have been reported. A few cases have been recorded in infants. The earliest on record is that reported by Taylor (BRITISH MEDICAL JOURNAL, 1897, vol. i, p. 458), which was operated on at the age of two days. Rigby and Howard (*Lancet*, May 25th, 1907) reported one at seven months. Edington (*Lancet*, June 25th, 1904) also reported one at seven months. Dowden (*Scottish Med. and Surg. Journ.*, September, 1901) reported cases at five and fourteen months. Including the present case six have been recorded within fourteen months, which appears to be an unusual proportion. These cases show the liability of torsion occurring in infants, and that it is probably the only cause of acute inflammatory swelling in the scrotum in early life.

Bedford.

W. GIFFORD NASH, F.R.C.S.

TREATMENT OF LOCAL LEISHMANIASIS.

WITH regard to recent discussions on the best local treatment for local leishmaniasis (Delhi sores, Baghdad boils), I should like to mention the treatment suggested by Surgeon-General Patterson, when Principal Medical Officer of the Aldershot District, to me, when I was in charge of the surgical wards of the Cambridge Hospital, Aldershot. A soldier had recently returned from India suffering from an intractable form of Delhi sore on the left wrist, which I had treated by scraping away the granulation tissue, followed by applications of solid silver nitrate, but with little progress as to healing. The treatment recommended to me was to scrape and clean the sore again thoroughly, and lightly apply solid caustic potash and dress. After one application the granulation tissue came away, and the sore healed as a clean healthy ulcer, and there was no return, either local or general. I gather that our present treatments are not satisfactory. I therefore put forward this method for trial by specialists and others.

E. J. ERSKINE RISK, Col. A.M.S.(ret.),
Ex-Commandant, R.A.M.C. College.

London.

IN Java 358 cases of plague occurred last December, all of which were fatal.

PROFESSOR J. LÉPINE has been elected Dean of the Lyons Faculty of Medicine in succession to Dr. Hugouenq.

DR. PIERRE BAZY has been elected member of the Section of Medicine and Surgery of the Académie des Sciences in place of the late Professor Guyon.