corresponding to affected lymphoid tissue, but the portion through which the inflammation had spread was apparently the only patch of size which was affected by the typhoid process. The patch being thickened, no attempt was made to deal with it, save that it was left under the abdominal wound, which was closed by sutures of silkworm gut passing through all the layers.

After-History.

The progress after operation was uneventful until the stitches were removed at the end of a month. Some difficulty was experienced in removing two of these, and of one a part broke off and was left in the wound. During the following night the patient had a rigor, and the temperature ran up to 103.6°. This was almost certainly due to the onset of a cystitis, which troubled the patient for some time—a lighting-up of a former trouble—and I cannot connect it with the accident in removing the stitch. Later an attempt was made to isolate Eberth's bacillus from the urine: this failed, but *B. coli communis* was separated. Except for an occasional attack of colic the intestine has not given rise to any trouble since the operation. The patient got up on January 15th, and has now been out and about for several weeks, and attends to a great part of his business as a tailor.

The special interest of the case lies in the diagnosis, the onset of peritonitis being signalled by marked symptoms. The pulse-rate certainly was never high, but in view of the other symptoms—and correctly as I think—stress was not laid on this, otherwise than as a hopeful factor in prognosis. With regard to the vomiting, absolutely nothing was given by the mouth after I saw him at nine until he recovered from the anaesthetic. Vomiting, of course, is not necessarily a symptom of peritonitis. Not to advance cases of an entirely latent character, a short reference may be made to a case where perforation and extreme peritonitis was associated with a minimum of sickness. W. R., aged 13, was admitted to the Glasgow Fever Hospital under my care in November, 1898. He was at the end of the third week of enteric fever, but had only taken to bed five days before admission. One afternoon towards the end of the fourth week he complained of slight abdominal pain. Next morning his temperature dropped to 98.4°, the pulse being 94. This morning he complained of pain in the abdomen and a desire to go to stool. The pain increased when the patient was placed on the bedpan, but lessened after the passage of a small motion.

During the day the face became more and more pinched; the pulse was increased in rate and diminished in quality while the area of liver dullness decreased. There was slight general tenderness of the abdomen and rigidity of the lower part of the right rectus muscle.

During the afternoon he vomited some milk on one occasion only. He generally refused milk after this, and once when he did take it complained of discomfort, but there was no further vomiting.

At the laparotomy a widespread peritonitis and two perforations were found. The patient died about sixteen hours later.

Possibly an earlier laparotomy might have prevented rupture of the ulcers—indeed, a third ulcer on the point of rupture was invaginated, the peritoneal coats being opposed by a continuous Lembert suture. In the first case a count of leucocytes might have helped in the diagnosis.

If patients are to be saved from perforative peritonitis in enteric fever by means of laparotomy, it is certain that many will be operated on in the preperforative stage.

The recovery of my patient in a private house where conveniences for surgical work were limited is an incentive to urge operation in doubtful cases.

PERFORATION OF THE APPENDIX WITHIN A HERNIAL SAC: RESECTION OF THE CAECUM AND ILEO-CAECAL JUNCTION: RECOVERY.

By J. BASIL HALL, M.A., M.C.CANTAB.,
Surgeon to the Union Hospital, and Monorary Surgeon to the
Royal Infirmary, Bradford.

ALTHOUGH a considerable number of cases of inflamed or strangulated herniated appendix have been recorded, the occurrence of actual perforation within a hernial sac is comparatively uncommon. Moreover, in every instance where perforation has occurred the appendix has been the sole

occupant of the sac, the general peritoneum being more or less shut off by adhesions at the ring. In the following case the sac contained both caecum and small intestine, and it seems probable that there had been a sudden descent of bowel into an unclosed funicular process, at the mouth of which lay an adherent appendix. This sudden descent tore the appendix from its adhesions, carrying it into the sac, and damaging it sufficiently to produce sloughing and perforation. The history of the case is as follows:

On January 26th, 1901, I saw W. H., aged 23 years, with Dr. Munro, of Bradford. The patient had always had good health, and never suffered from hernia up to five days ago, when he was lifting a sack of flour, and felt a sudden acute pain in the right groin and a sensation of something having given way. He then became conscious of a large scrotal swelling, and went home to bed. He "felt sickly," but there was no vomiting. During the night the swelling disappeared, but on getting up in the morning it came down again. Pain in the scrotum then became severe, and he felt ill and feverish. There was constipation but no vomiting or distension of the abdomen. When seen five days after the accident, he had a right inguinal hernia the size of a small cocoon. The swelling was tender, the upper half tympanitic, the lower dull on percussion and not translucent. His temperature was 99°. He was removed to the Royal Infirmary. The bowels were emptied by enema and the motions were normal. Next day his temperature rose to 101.4°, but he otherwise seemed well. During the following two days his temperature fell somewhat.

On February 1st, ten days after the accident, I operated under ether. The sac being opened high up, I first exposed the colon, and, finding the rest of the sac shut off by recent lymph and adhesions, I extended my incision downwards and found my way into a mass of lymph, disorganized blood clot, and pus. Buried in this was the caecum and ileo-caecal junction. At the apex of the caecum was a ragged and irregular mass, which proved to be the remains of the appendix. Near to its base was a sloughy opening out of which pus and faecal material oozed. Two small concretions extruded from it whilst it was being examined. The whole of the parts were so infiltrated and softened and so thoroughly septic that I felt that to return them into the abdomen would almost certainly result in peritonitis. I therefore decided to do an enterectomy.

Having placed elastic ligatures on either side I resected the caecum, appendix, and about 1½ in. of ileum, bringing the ends together with a Murphy's button. The ileum being somewhat dilated, the difference in calibre between the two cut ends was insignificant. I had previously noted that the abdominal ring was large enough to allow the button to be replaced through it. The sac was then removed and the ring closed. The patient bore the operation well, there being comparatively little shock. Recovery was uneventful. The wound healed by first intention; the bowels acted spontaneously on the second day, the button being passed on the seventeenth. The scar is sound and the patient wears no truss.

Reporter.	Hernia.	Contents of Sac.	Reference.	Result.
Cruveilhier	?	Perforated appendix	<i>Anatomie Pathologique</i> , 1835	?
Annandale	Right femoral	Perforated appendix	<i>Lancet</i> , vol. i, 1889	R.
Hall	Right inguinal	Perforated appendix, tuberculous?	<i>New York Medical Journal</i> , vol. xlii	R.
Davies-Colley	Right inguinal	Perforated appendix	<i>Guy's Hosp. Reports</i> , vol. xlii	R.
Davies-Colley	Right femoral	Perforated appendix	<i>Ibid.</i>	R.
De Morgan	Right inguinal	Perforated appendix	<i>Path. Soc. Transactions</i> , vol. xxv	D.
Waring and Eccles...	Right femoral	Perforated appendix	<i>Bart's Hosp. Reports</i> , vol. xxvii	R.
Basil Hall	Right inguinal	Caecum, ileum, and perforated appendix	Present case	R.

Although the sac was obviously a congenital one and the ring large, there was no history of a hernia ever having been present in earlier life. It seems most probable therefore that the neck of the sac had been blocked, prior to the accident, by an adherent appendix. The sudden descent of the hernia, by tearing the adhesions, probably damaged the appendix sufficiently to produce sloughing and ultimate perforation. The adhesions may have been produced by the presence of the concretions. Perforation evidently occurred after the patient entered the hospital, as shown by the onset of fever.

It was most fortunate that the hernia, after reducing itself spontaneously after the accident, descended a second time into the sac, and that no attempt at taxis was subsequently made. It seems to me that in all herniae where there is any suspicion of unusual contents the reduction by taxis is fraught with great danger. Indeed, it is very doubtful, except under conditions where operation is strongly contra-indicated, whether taxis should ever be attempted at all. In cases where a general anaesthetic is undesirable herniotomy

can be easily performed under cocaine; whilst, on the other hand, where the condition of the bowel is probably such as will produce a fatal result, taxis is infinitely more dangerous than herniotomy.

The following list is, I believe, a complete one of all the recorded cases of perforated appendix occurring within a hernial sac. The mortality is at first sight surprisingly small, but it must be remembered that, with the exception of the present example, most of the operations were practically extraperitoneal.

MEMORANDA: MEDICAL, SURGICAL, OBSTETRICAL, THERA- PEUTICAL, PATHOLOGICAL, Etc.

GENERALIZED VACCINIA.

IN connexion with the report of a case of generalized vaccinia by W. T. Freeman, M.D.,¹ it may be of some interest to record a somewhat similar case of this rare condition which has come under my notice.

On March 24th I revaccinated an able seaman, aged 32, who had previously been revaccinated in 1886, and had five typical foveated marks. The result was four modified vesicles, which were fully developed on the eighth day, and ran a normal course. On April 11th, three weeks from the date of revaccination, he consulted me about a rash which had appeared on the side of his neck, and was rapidly extending. I found numerous large shotty papules on the left side of the neck, some of which were just entering the vesicular stage. There was no trace of any rash in the vicinity of the vaccination marks or in any other part of the body. On April 12th the rash was very profuse, and the entire neck was covered with shotty papules and vesicles showing well-marked umbilication. Two of the vesicles on the back of the neck were of very large size, and closely resembled the vaccination vesicles on the arm, both in appearance and size. There was also on this date a profuse papular rash on both wrists and forearms, the back of the hands, and forehead, similar to that on the neck.

On April 13th the rash on the neck had still further increased, and was now confluent with a good deal of inflammatory reaction. The rash on the wrists was more profuse but remained discrete and exhibited umbilication similar to that on the neck. The glands in both axillae were enlarged and tender. From this date the rash ceased to extend. Vesiculation and maturation took place very rapidly, the process stopping short of the pustular stage, and on April 15th scabbing was well marked on the affected parts. All trace of the eruption had disappeared by April 17th, and was succeeded by a slight branny desquamation lasting a few days. The only symptom complained of was a sensation of heat in the affected parts during the first three days of the eruption. No rise of temperature took place nor were there any constitutional symptoms whatever.

R. W. G. STEWART, M.B., B.Ch., Surgeon R.N.

A NOTE ON PICRIC ACID AND ON POTASSIUM BROMIDE.

IN case my experience in the use of these two drugs would be appreciated I draw attention to them. I believe both have previously been lauded, but there will be no harm in additional testimony.

Picric Acid.—A saturated solution of this applied, under oilskin or similar material, on linen cloths will act as a charm in erysipelas, as also in the inflamed and often ulcerated arms to be occasionally met with during vaccination.

Potassium Bromide.—In treating alcoholics in all stages, when suffering from sleeplessness, give this in drachm doses with a drop or two of strychnine every two hours, keeping the patient under it until all tremors are lost, reducing the dose gradually; the secret of success in this treatment consists in rousing the patient to take a half-pint of the very best-prepared beef-tea every three or four hours. If this

¹ BRITISH MEDICAL JOURNAL, March 1st.

treatment is preceded by a good dose of calomel (some 7 gr. or 10 gr.) and followed by a tonic, it will prove more successful. I have had some ten or more very successful results along the above lines and with no ill-effects.

Tunbridge Wells.

ERNEST R. FOTHERGILL.

REMOVAL OF FOREIGN BODIES BY GALL-STONE FORCEPS.

I CAN bear witness to the use of "Lawson Tait's" gall-stone forceps (crocodile mouth) in removing foreign bodies from the larynx and pharynx, as reported in the BRITISH MEDICAL JOURNAL of April 12th by Mr. A. R. Anderson.

A lady consulted me some few months ago concerning a fish bone which had become embedded low down in the pharynx, much beyond the reach of the finger, the spot being indicated by the patient complaining of a pricking sensation and great difficulty and pain on swallowing, the parts being quite oedematous.

With the aid of the laryngoscope I was able to detect the point of a fish bone. After trying various instruments—which were all unsuccessful—it occurred to me to use the gall-stone forceps, when, with the greatest ease, I removed a fish bone, which had been there quite three weeks. I have also found these forceps useful in removing small stones in nephrolithotomy.

Aberdare.

E. J. TREVOR-JONES, M.D.

TORTUOSITY OF INTERNAL CAROTID.

IN the BRITISH MEDICAL JOURNAL for November 23rd, 1901, and January 11th, 1902, cases were reported of the above. Some years ago I found in the dissecting room of the Bristol Medical School a very remarkable twist of the left internal carotid of which I made a rough sketch, here reproduced.

A, external carotid. B, digastric. C, internal carotid.

Nearly all the vessels of the head and neck were tortuous, but in this particular artery, as will be seen, a complete circular coil was formed. The subject was an old man, and, I believe, was certified as having died of kidney disease.

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