two fingers being easily inserted into the rectum without causing any discomfort. There had been marked prolapse, and this was only slightly improved. His general condition was poor.

Perhaps the most striking case was one where the man had suffered for fifteen years, and it was with some difficulty that he was persuaded to submit to out-patient treatment as he was determined to have the operation performed. For some years he had been forced to wear a support to prevent prolapse of the rectum whilst walking. The mucous membrane was seen to be very markedly prolapsed and several piles were present, the anterior pile being the size of a walnut and the left lateral the size of a very large Brazil nut. The latter after two injections was completely thrombosed and the anterior after three injections. Prolapse soon disappeared, the anal orifice became normal, the sphincters regained their tone, and no stricture of the canal has developed.

Before subjecting a patient to this treatment he should be as thoroughly examined as if a major operation were to be performed. I would strongly insist on this, as the only death with which I am acquainted occurred in a case of advanced Bright's disease. Too much carbolic should not be injected—2 to 5 minims of the mixture is sufficient to inject into a pile at one time—and not more than three piles should be treated on any one occasion. If large amounts of carbolic are injected carboloria may result. Bright's disease, diabetes, pernicious anaemia, advanced cardiac disease, hemiplegia, and epilepsy are all contra-indications.

The advantages of the method are that it is almost painless—some nervous patients (especially women) complain of pain for some time afterwards, but this is very rarely severe; no anaesthetic is required; and the treatment can be carried through from beginning to end without the patient being incapacitated or his daily routine interfered with.

Since completing this series, I have tried the effect of injecting 30 per cent. sodium salicylate into piles. The results of the few cases (40) thus treated are as good as those treated with carbolic acid, but the pain immediately after injection is more severe and lasts longer.

HAEMOPHTHALMUS IN ASSOCIATION WITH TUBERCULOUS FOCI IN THE CHOROID.

BY

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It may be said that the diagnosis of tuberculous inflammation of the middle coat of the eye, assuredly a secondary infection, is a matter of more or less clinical probability. The family history and the personal history of the patient, together with the finding of a tuberculous lesion elsewhere and the exclusion of *Spirochaeta pallida* infection, form, as a rule, the basis of one's etiological belief. There is also that fallible but often trustworthy factor, clinical instinct. Not infrequently the primary focus remains undiscovered; and such aids as von Pirquet's skin reaction and Calmette's conjunctival reaction have not secured the allegiance of clinicians. A diagnostic help that may have unfavourable consequences in this relation is the hypodermic injection of Koch's old tuberculin. Its value is definite only if it be followed by the occurrence of irritation or an increase of irritation in the affected eye. But one cannot foresee how much irritation may arise, and it has happened that such an aggravation of the inflammation has been provoked that neither patient nor oculist was pleased with the mode of confirming the diagnosis.

CASE I.

Miss T., aged 26, had noticed, one week before visiting me, that the left eye was blind. She had lighted a candle in a dark room and, upon turning sideways towards the light, thought it had gone out. She then faced the lighted candle and, by closing each eye in turn, found that the left one was blind. When I examined this eye its pupil was inactive to direct illumination, there was a floating opacity in the vitreous humour, and the disc, which was scarcely recognizable, seemed to be enveloped in a bulky oedema with a

streak of haemorrhage on its surface. The floating opacity was situated in the centre of the vitreous and was so delimited as to allow of the red reflex being clearly seen all round it. The blood had been poured out into Cloquet's canal. Towards the nasal side of the disc was seen a patch of choroidal atrophy bordered by a line of dark pigment. The eye was blind. One month later I noted "floating opacities in the vitreous; pale disc indistinctly outlined; periphery of disc slightly prominent; arteries small." After five months the disc had the filled-in appearance, pale colour, and smudged edge of secondary optic atrophy. Immediately adjoining the lower border of the disc and spoiling its regular contour was a flat pale area about one-fourth of the disc's diameter in size. The right eye was normal.

Miss T.'s brother, aged 24, asked me to look at his right eye, which was not as good as the left. Below the right macular region were a sharply outlined, brilliantly white patch (almost as large as the disc) of choroidal atrophy and a tiny ill defined pale nodule alongside it. The visual acuity of this eye was 6/18; the other eye was normal.

Both brother and sister had always enjoyed good health. Miss T. declared herself to be somewhat run down, in consequence, she believed, of her nursing duties during her mother's last illness, which had terminated three months previously from heart failure. Their mother, over 70 at the time of her death, had suffered for years from a bronchial affection, which was said to be of a non-tuberculous nature. A sister of theirs, a child of 13, died of pulmonary tuberculosis.

CASE II.

E. B., a robust young woman of 24, noticed, a few days before coming to hospital, that the vision of the right eye had become greatly impaired. With this eye only shadows could be seen. The vitreous contained a large felt-like mass, which effectively obscured all details of the fundus. It was thought that a dimly seen glistening streak might be a tear in the retina. The other eye was normal. A general examination failed to reveal anything amiss. A differential blood count presented the normal picture. Rest, avoidance of stooping, and 5 grains of calcium lactate daily made up the treatment.

Three years later the patient returned to hospital on account of a simple phlyctenular conjunctivitis.

After her last visit she had remained in bed for one year! The vision of the right eye was 6/12, and of the left one 6/12 (partly). Far forwards in the vitreous chambers were seen floating knots and threads. Each fundus exhibited, at the periphery, the albinotic appearance seen after atrophy of the retinal pigment layer. There was in the right eye a patch of choroidal atrophy, and in the left one a raised focus at the junction of the lower and nasal borders of the disc. Engorged vessels were arched over the prominence.

Very often one sees in chronic tuberculous choroiditis foci in different stages of evolution. Some of the foci will have become atrophic patches, others will be recent, showing ill defined edges and raised forms. In the first case some support was given to the diagnosis of tuberculosis by the family history and the examination of the brother's eye. Both patients gave a negative Wassermann reaction. The phlyctenular conjunctivitis of the second case was not, in a pathological sense, out of place. But perhaps it is best to say that the opinion of the nature of the cases is the result of cumulative clinical impressions.

APPENDICITIS AND INTUSSUSCEPTION IN A DOG.

LYMPHATICOSTOMY FOR SEPTIC PERITONITIS.

BY

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THE publication of the following story of the illness, death, and *post-mortem* examination of a puppy may be justified not only as a contribution to comparative medicine, but by the fact that the conditions found raise some interesting general questions.

A terrier, aged 8½ weeks, when seen on November 8th, 1922, was in a state of extreme emaciation with a poor appetite, and hardly any of the liveliness of a puppy. The bowels, which were at first relaxed, later became constipated. Castor oil caused vomiting and loose actions, but did not clear the intestine. There was no abdominal distension nor definite evidence of pain on manipulation. On November 15th and 16th hard masses were felt towards the pelvis. On November 17th an enema induced a discharge of faeces tinged with blood, and death occurred on that day.

Autopsy showed an intussusception involving the last twenty-four inches of the small gut. The peritoneal surfaces at the distal

end of the inverted bowel were inflamed and adherent, and the peritoneal sac contained a little clear fluid. The peritoneum generally, and that of the greater portion of the inverted intestine, appeared healthy. A tube having the position and relations of the vermiform appendix was thickened and distended and fixed in its whole length (two inches) by old adhesions. It was soft and its cavity communicated with that of the caecum through a narrow opening.

This dog obviously suffered from chronic appendicitis and from an intussusception which proved fatal. The conditions were exactly those which might be found in a child. I had, however, some doubts about the teaching and, on consulting *Quain's Anatomy*, I found the following: "So far as is known, the appendix is peculiar to man and certain of the higher apes, and to the wombat" (*Quain*, ninth edition, vol. ii, p. 614). Mr. Powell, the librarian of the Royal Society of Medicine, kindly looked up the authorities for me and wrote that "all the books and treatises we have state definitely that the appendix is wanting in domestic animals."

No opportunity to dissect another dog has presented itself, but a paper recently published by W. A. Costain of Toronto gives evidence that the dog has an appendix. This paper is most interesting. It records that when a ligature is placed on the appendix and the meso-appendix of a dog septic peritonitis follows and is fatal in about two days (*Surgery, Gynecology, and Obstetrics*, vol. xxxvi, p. 365). But if the thoracic duct is ligatured and drained twenty-four hours after ligaturing the appendix, the poison, instead of being taken into the blood stream, is discharged from the body and recovery takes place. A collateral lymph circulation develops, and the drainage fistula heals spontaneously. Dr. Costain tied and opened the thoracic duct, close to its entry into the vein, in the neck of a 9-year-old child suffering from acute pneumococcal peritonitis. No abdominal operation was performed except the removal by aspiration, for examination, of half a cubic centimetre of pus from the right side of the peritoneal cavity. This pus contained pneumococcus iv. Rapid disappearance of all symptoms proved that septic absorption had ended. The abnormal abdominal conditions gradually subsided, and the patient was discharged, cured, twenty days after the operation.

The extraordinary power of the peritoneum to get rid of infection is one of its most remarkable features. Nevertheless septic peritonitis is common, and when definitely established it is usually fatal. Hence a main object of surgeons during the last forty years has been the prevention of septic peritoneal infection. This has been in great measure effected by averting its causes. But still it occurs, and Dr. Costain's observations prove, as he claims, that "when a fatal absorption is overcome, the peritoneal cavity is capable of looking after such a formidable structure as a necrotic appendix." It would appear, therefore, that lymphaticostomy must be considered an important and hopeful treatment for the prevention and cure of septic peritonitis in suitable circumstances.

A SERIES OF CASES RESEMBLING PARALYTIC ILEUS.

BY

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THE following cases have come under my treatment during the last three years, and I am publishing them not only on account of their interest but also to invite correspondence as to the cause. I can find nothing described in the various systems of surgery which in any way resembles the cases under report.

CASE I.

In July, 1921, at Rawal Pindi Civil Hospital, a well developed young Punjabi, aged 22, came in complaining of abdominal pain and giving a history that his bowels had not been open for ten days. He did not appear to be in the least distressed and except for a distended abdomen was otherwise normal. His tongue was clean, pulse 80, temperature 98°. Pain was of a general character and no special point could be elicited on palpation. Per rectum nothing abnormal was felt.

He was admitted and given an enema with oil, soap, and turpentine. Water only by mouth. Seen the next morning, his general condition was the same. There was no sign of peritonitis. The enema had been passed almost clear. The abdomen remained distended and he complained of rather severe pain. A second enema was given and 1/2 c.cm. pituitrin hypodermically. He passed urine but no flatus, and the wash-out was returned clear. Seen again the following day he was in the same condition. He had not vomited, there was no rigidity, his pulse remained 80, and his temperature normal. He however complained of more severe pain, so I decided to do a laparotomy.

The operation was done that morning under chloroform. On opening the abdomen free blood-stained fluid escaped at once (I suppose in all there were two pints of free fluid), the small intestines, in large distended coils, and purple in colour, evacuated themselves and were immediately surrounded by hot saline towels. The large intestine was seen to be equally distended but not so discoloured. No line of demarcation of strangulation was seen, in fact the large intestine was distended down to the lower sigmoid. A rectal tube was passed well up the lower bowel and at the same time the small intestine was punctured by a large trocar and cannula and the contents as much as possible evacuated. Two ounces of mag. sulph. in ten ounces of water were introduced into the small intestine at the last puncture. Four punctures in all were made, three in the small and one in the large intestine. The intestines were returned fairly easily and the abdomen closed. Pituitrin 1/2 c.cm. was given four-hourly for six doses. The rectal tube was left *in situ*. The patient was kept in Fowler's position, and only sips of hot water given by the mouth. He made an uneventful recovery and left the hospital fourteen days later.

CASE II.

At Rawal Pindi two weeks later, a frail woman, aged about 40, walked into hospital complaining of abdominal pain and giving a history of absolute constipation for fourteen days. As in the last case, except for a distended abdomen there were no signs or symptoms of disease. She was a feeble creature with a small pulse and no physical reserve. She was given an enema as in the previous case, with the same result. The next morning as she was no better I decided to do a laparotomy and the operation was done as in the previous case.

On opening the abdomen there was no free fluid, but the intestines had the same purple appearance and were greatly distended. The same routine was carried out as rapidly as possible and the abdomen closed. In spite of pituitrin, camphor in oil, nux vomica, and enemata, her bowels refused to act and she died three days later. No obstruction was found at the time of operation and at necropsy no signs of inflammation, kinks, or bands.

CASE III.

At Jullundhar in November, 1921, an emergency case of intestinal obstruction was admitted at 5 p.m. The patient was an old, frail, wizened-up man about 60 years of age. He gave a history of absolute constipation for fourteen days, and had a distended abdomen with some abdominal pain. He had come in by road eighteen miles in an ekka and walked from it to the surgery. He was given an enema and a stimulant draught. The enema produced no result.

At 6 p.m. a laparotomy was performed. Free blood-stained fluid escaped from the abdominal cavity. The small intestine was distended, but the most curious feature was that the internal and muscular coats appeared to have given way in places and the peritoneal coat only remained intact and that was distended in large beads about the diameter of a sixpenny piece. The case was so obviously hopeless that a Paul's tube was tied in and the patient returned to the ward. He died the same night. In getting the Paul's tube out the abdomen was opened and again no visible obstruction was found.

CASE IV.

At Delhi in January, 1923, a Pathan boy, aged about 18, was admitted with a history of nine days' constipation and a painful distended abdomen. His tongue was foul, pulse 100, temperature 99°. An enema was given without result, and he was operated on almost immediately afterwards.

At operation the same condition of the intestines was found except that the large intestine was not so distended. The only possible cause of obstruction was a slight mesenteric kink at the hepatic flexure of the large intestine, but was not sufficient to cause more than slight partial obstruction. The gut did not contract down well after evacuation of the contents by the cannula, nor did much material or gas escape by the rectal tube. In spite of all the usual remedies he never passed flatus, and died three days later.

If a complete *post-mortem* examination had been possible on these last three cases some cause might have been found to account for the condition; but what about Case I, who was apparently of the same type? I feel that I cannot be the only civil surgeon in India who has come across this type of case and should be glad to hear the experience of others.

In the first two cases I was assisted by Assistant Surgeon Gopal Dass and Sub-Assistant Surgeon Chand Narain; in the third case by Khan Sahib Mohammed Shariff; and in the last case by Lieut.-Colonel H. Hallilay, I.M.S.