As regards the incisions, access was attained to the axillary border of the bone very easily, and if it had been necessary the axilla could have been cleared out without much trouble. (At the same time, the cicatrix in the length of the posterior axillary fold is liable to fretting by the clothes.)

The giving way of the apparently soundly healed cicatrix of the primary operation was unexpected, the more so as the limb was kept bandaged to the side for at least a fortnight after the secondary measures, and the tension must have been very slight. The bleeding was comparatively trifling, a fact probably due to early stage at which the operation was performed.

■ The result as regards subsequent usefulness of the limb is only what is to be expected from a consideration of the records of similar cases.

In conclusion I have to express my thanks to my friends Drs. Gibson, Sutherland, and Wyllie Nicol for their kindly help, and also to Mr. James Gilmour, to whom I am indebted for the execution of the accompanying illustration :

The specimen has been divided vertically about midway between the vertebral and axillary borders of the bone, and the cut surfaces are turned towards the observer. The naked eye appearances described in the pathological note are taken from this view.

The patient and specimen were shown at the Glasgow Medico-Chirurgical Society's meeting on May 7th.

DR. LORANS, Medical Inspector of Immigrants at Mauritius, has been deputed by the Government of Mauritius to visit Bombay and other parts of India to study the plague, with a view to devising the best means of preserving Mauritius against the introduction of plague, and to acquire a thorough knowledge of the sanitary measures and precautions taken by the Government of India.

ON MECKEL'S DIVERTICULUM.

By T. N. KELYNACK, M.D., M.R.C.P.,

Pathologist to the Manchester Royal Infirmary; Demonstrator and Assistant Lecturer in Pathology, Owens College.

MECKEL'S diverticulum forms the remnant of the omphalo-mesenteric duct. A few years since the Anatomical Society of Great Britain and Ireland published the results of a collective investigation as to the occurrence of this diverticulum ilei.¹ As a supplement to this research an analysis of the cases which have been met with recently in the pathological department of the Manchester Royal Infirmary may not be without interest.²

Photograph of Meckel's diverticulum after moderate distension with plaster of paris.

Number and Proportion of Cases.—Among 1,446 subjects examined, 18 examples of Meckel's diverticulum have been met with. This gives a proportion of 1 in 80, or not quite 1 per cent.

Sex.—This embryonic vestige seems to occur more frequently in the male.³ In our cases the proportion was 11 males to 7 females.

Age.—This is merely of interest in so far as it shows that this foetal remnant does not greatly predispose to serious

intestinal derangements. The average age of the 18 cases was 38 years, that of the males being 36 and that of the females 38 years. The eldest male was 60, the youngest 14; the oldest female 62, the youngest 13 years.

Cause of Death.—In no instance was the presence of the Meckel's diverticulum in any way connected with the cause of death. In one case at least it was so placed as to have readily allowed of the occurrence of an internal hernia.

Position.—The distance of the diverticulum above the ileo-cæcal valve averaged $34\frac{1}{2}$ inches; the greatest was $50\frac{1}{2}$, the smallest 15 inches.

Length.—The average length of our 18 specimens was nearly 24 inches; the longest $6\frac{1}{2}$ inches, the shortest half an inch.

Size.—This varied considerably. The diameter in 12 averaged an inch and a half. A photograph of the largest specimen is reproduced on p. 459. It was discovered in a male subject, aged 42, dying from acute pneumonia. The diverticulum was connected with the ileum by a narrow mouth three-quarters of an inch wide, and then extending to a diameter of an inch, rapidly widened into a large pouch almost as big as the cæcum. It had a diameter of $3\frac{1}{4}$ inches, and a circumference of $10\frac{1}{2}$ inches. It lay quite free in the abdomen. Possibly its large size may have been due to distension by the intestinal contents.

Connection with Intestine.—In all the cases the diverticulum freely communicated with the intestine. In only a few instances was the mouth distinctly smaller than the lumen of what might be called the body of the diverticulum. Occasionally the origin from the gut proved to be distinctly funnel-shaped. No valve was present in any case.

Relation to Mesentery.—The diverticulum always arose on the far side from the mesentery, although not always immediately opposite to it. In one instance it was adherent to an adjoining fold of mesentery. Generally the diverticulum came off at right angles to the gut, but in some subjects it was placed a little obliquely to the intestinal canal.

Contents.—In no instance did the diverticulum contain any foreign body. Often there was nothing but air, but in some a little faecal matter was present.

Special Characters.—Two specimens had a cord-like structure coming off from their termination. In one the cord was fixed to the abdominal wall, forming a loop. One had a bifid extremity. Several had bulbous or club-shaped terminations, with secondary lateral dilatations. Many were mere nipple-shaped projections.

In no instance was the lumen of the diverticulum continued to the umbilicus or abdominal wall.

I am indebted to my brother, Mr. W. S. Kelynack, for the preparation of the accompanying photograph.

REFERENCES.

¹ *Journal of Anatomy and Physiology*, 1892, vol. xxvi, pp. 91-93. ² Some of the cases met with I have already described elsewhere; see *Transactions of the Pathological Society of Manchester*, 1892, vol. i, p. 140; *Journal of Anatomy and Physiology*, 1892; *Manchester Medical Chronicle*, 1896 vol. v, No. 5, pp. 338-43. Many of the specimens I have added to the Pathological Museum of Owens College. ³ It must be remembered that in the pathological department of the Manchester Royal Infirmary, as in most general hospitals, considerably more male subjects are examined than female.

REMARKS ON COLITIS IN THE ADULT.

By ARTHUR JAMES CAMPBELL, B.A., M.D.,
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COLITIS is, I think, more frequently met with in the south-west than elsewhere in our island, and probably yet more frequently in tropical countries, where it merges into dysentery and is treated as such. It is generally developed in delicate persons, more particularly women; pregnant women are particularly liable to be attacked, while young girls may not only have this complaint, but sometimes on account of it develop a wretched carriage owing to "pot belly" and bowed back. Occasionally a patient may attribute the illness to some indiscretion in diet, but the majority fail to give any satisfactory cause. I believe the catarrhal condition is engendered by repeated slight irritations, possibly increased by a "chill" rather than by an error of diet.

The colon alone is the usual seat of disease, although the smaller intestine may be invaded in the later stages. The descending colon is the part most often attacked, and in

those severe cases in which death occurs, the mucous membrane of the gut is swollen with more or less ulceration, and the colour resembles prune juice, or even dark chocolate, the presence or absence of bismuth not appreciably affecting the hue. The severe catarrhal condition is very intractable and prone to become chronic. It may last from months to years. One severe case under my care is now entering on her tenth year of suffering.

The ailment commences so quietly and insidiously, that it is established before much notice of it is taken by the patient. Pain in the bowels on rising, or shortly before rising, in the morning causes the sufferer to make a hurried toilet and hasten to obtain relief. The evacuation is more or less liquid, and may be repeated twice, or thrice, or oftener during the morning. About noon there is a respite, usually until next morning, unless the consumption of vegetables or fruit acts as a stimulus to the irritable bowel and prolongs the daily attack. The appearance of the motion varies from a brown pulsatious mass containing air bubbles and having a horrible odour to a pale liquid of jelly-like consistency, which may be streaked with blood. The usual stool is of a light yellow colour, offensive, and either watery, or in a thin, partially-shaped mass. At times, but especially in elderly people, there is an occasional period of comparative constipation, when several evacuations of small scybala with a little slime constitute the motion. Much exhaustion follows each stool, the appetite is capricious, "sinkings" and "longings" are commonly complained of, pain is at the worst moderate, but the distension which occurs during the stages of comparative constipation causes much distress. As the severity of a case increases, ten, twenty, or more motions may be passed daily, the quantity of each being sometimes very small, but the straining, tenesmus, and exhaustion are out of all proportion to the amount evacuated. Occasionally attacks with very watery blood-stained motions, accompanied by severe prostration and pain, may occur, or even hæmaturia may complicate the case, but this is exceptional.

The disease may be located by percussion and palpation. At certain times a sharply-defined tympanitic patch over some portion of the colon may enable the physician to judge whether local treatment is practicable, and to learn the extent of bowel affected, but there are periods when, owing possibly to the presence of fæces, the determination of the seat of disease by percussion is impracticable. Even then the increased rigidity of the abdominal muscles over the affected area may give a clue to the situation of the diseased intestine.

Temperature is, as a rule, normal or subnormal, the pulse usually quickened. Emaciation and pallor more or less quickly become noticeable. I have not found any other organ become affected; the tongue has a faint whitish coating, or is raw. Dr. George Thin has described a variety of this disease, in which sore mouth and enlarged liver are found. In none of my cases save one have these distinguishing features been present, and, I may add, I have not observed hæmorrhoids in any case.

Where "cure" has been effected, I have invariably found that with cessation of diarrhoea more or less severe attacks of colic have supervened, with some indigestion, but with suitable treatment they have passed away in the course of months.

TREATMENT.

For severe cases, milk diet and rest in bed; for the milder cases, abstention from fruits and vegetables, a considerable amount of milk daily, and the less exercise the better. Even mild excitement, such as going to church, ought to be avoided; Sunday morning I invariably find to be the worst in the week with these patients.

With regard to drugs, purgation seems unreasonable, and is certainly very unsatisfactory; even those cases in which one is led to suspect an accumulation of fæces high up do not gain much benefit from purgation, and the fact of retention ought to give rise to a serious suspicion that cancer or some narrowing of the gut exists, even if there be little pain and no sign of such a complication. The smallest purge has had bad effects in all the cases I have seen which were uncomplicated. Even a single slice of apple or a small quantity of any raw fruit generally causes most distressing diarrhoea, which is frequently prolonged.