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NOTES ON A CASE OF FISSURA ABDOMINALIS :

OPERATION AT AGE OF 2½ HOURS.*

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THE comparative rarity of a case of this type coming to operation, and the apparent recovery from the immediate effects of operative interference, are the reasons why I thought fit to report the case.

The subject was a seven to eight months premature female child, born before the arrival of Dr. Ferguson on June 5th.

When I saw the child two hours later a large mass of bowel lay exposed outside the abdomen without peritoneal or other covering. On washing the bowel with warm saline solution it was seen that the prolapse consisted of all the large intestine and several inches of the small, with a patent Meckel's diverticulum. A part of the bowel was covered by the gelatinous matter of the umbilical cord, a well-marked line indicating where it joined the skin. Close to the right of the base of the umbilicus, and joined to it by the gelatinous matter, was the orifice of the patent diverticulum. This diverticulum was about 2 in. in length, its diameter that of a cedar pencil, and joined the small intestine about 3 in. from its termination.

I removed the diverticulum flush with the bowel, and excised the rest of the gelatinous matter, freeing the umbilical cord at the same time from the margin of the fissure. The fissure, which was between 1 in. and 2 in. in length, was slightly enlarged towards the pubes, and the intestines placed within the abdomen. The deep layers of the abdominal wall were united by continuous catgut suture, and the skin by several points of silkworm gut, the umbilical cord being fixed in the upper angle of the wound. The child was slightly sick after the operation, but rallied well, and four hours after was fed with 3j of milk and 3iij of water; this was repeated every six hours. The following day a rectal catheter was passed and a considerable amount of flatus got rid of. Olive oil was administered by the mouth, but had no effect, so a small simple enema was given, with satisfactory result. The bowels subsequently acted naturally. There was no difficulty with micturition.

The diet was increased on the third day, the child still seeming hungry and taking well. The stitches were removed on the fifth day, when the wound was soundly healed; no signs of distension were present. On the sixth day, however, the child became jaundiced and passed a clay-coloured motion, and some purpuric spots appeared on the lower extremities. It was somewhat listless, and did not enjoy its food as before. It died on the evening of the eighth day.

I confess to being disappointed in the result, but feel that, could the child have been returned to its mother and had the advantages of breast feeding and animal warmth, it would probably have survived, as it never exhibited an abdominal symptom and seemed to be progressing satisfactorily until the sixth day.

I have not been able to find much information in the literature, but would refer to a case recorded by Mr. Lockhart Mummery¹; it was not operated on and died. In Mr. Edmund Owen's work on the *Surgical Diseases of Children* an excellent photograph and remarks on treatment appear.

REFERENCE.

¹ *British Journal of Children's Diseases*, 1904.

ASCARIS LUMBRICOIDES AS CAUSE OF APPENDICITIS.

By ALDO CASTELLANI, M.D.,

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IN a very interesting paper published in the *BRITISH MEDICAL JOURNAL* of March 26th, 1906, Dr. F. E. Anley has suggested the hypothesis that *Ascaris lumbricoides* might be the cause of some cases of appendicitis—particularly in the tropics where that worm is so common. In support of his theory Dr. Anley quotes two cases in which the symptoms of the disease subsided when a round worm was passed in the stools. He is of opinion that the inflammation might be set up by the worm attempting to

enter the appendix or by the worm obtaining a partial entrance, if no more, into the organ.

Nearly two years ago I had the opportunity of making in Ceylon a *post-mortem* examination which seems to me to prove that Dr. Anley's supposition is in some cases an actual fact.

The body was that of a young Tamil girl of about 14 years of age. The clinical history sent with the body was unfortunately not very complete, but the following principal points could be gathered. The girl had been suffering from intestinal helminthiasis for a long time and had passed round worms in the stools on several occasions. She was given santonin. Shortly after the administration of the drug she had vomiting, pain and tenderness on the abdomen, especially on the right iliac fossa, with some rise of temperature. This condition lasted apparently unchanged for about two days, when the girl died suddenly.

The *post-mortem* examination was held a few hours after death. There was nothing to be noted concerning the thoracic organs. There was no effusion into the peritoneal cavity, and the peritoneum did not show any sign of inflammation.

The appendix was observed to be protruding, and presented engorged superficial vessels, and here and there small areas of fibrinous exudation. The organ was quite free, no adhesions whatever being present. To the touch it was hard, and felt as if it contained a cylindrical body. The intestine having been opened, this body was seen to be an ascaris firmly imbedded for about one half of its length in the appendix, the other half being free in the intestine. The worm was very firmly inserted into the appendix, and could not be pulled out, although some force was used. The worm was apparently dead, as the free portion did not show any movements. On squeezing the appendix towards the base a little purulent liquid oozed from between the walls of the appendix and the ascaris. This liquid was examined bacteriologically; the *B. coli* only was found. The small intestine contained numerous ascarides, some of which were still alive. No other helminths were present. The mucosa of the small and large intestine was slightly hyperaemic, but no ulcers of any kind were present; the mesenteric gland were not enlarged.

It might be said that the worm entered the appendix after the death of the patient; it seems to me that this cannot have been the case, as the worm was very firmly imbedded, and was dead when the examination was made.

A photograph of the appendix containing the worm was taken, and is here given. Later on sections of a portion of the appendix were examined microscopically. They showed a diffuse leucocytic infiltration of all the coats; the mucosa was swollen, and several minute haemorrhages were seen. The lumen was completely occupied by the worm, the external surface of which was surrounded by a zone of desquamated and exudated cells from the mucosa, which showed several erosions.

In conclusion, it appears to me that the result of this *post-mortem* examination clearly proves that ascarides

* Read at the annual meeting of the Ulster Branch of the British Medical Association, June 21st, 1906.