Clinical and Other Notes.

A CASE PRESENTING AN ABNORMAL PERITONEAL LAYER COVERING THE SMALL BOWEL.

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The following case is reported because of the unusual and unaccounted-for anomaly at operation:

The patient, a soldier aged 46, was admitted to hospital on November 14, 1942, with acute abdominal pain. He stated he first experienced severe generalized abdominal pain in the early hours of the previous day. The pain eased later in the morning but he reported to his R.M.O. who gave him medicine which was followed by vomiting. This was the only occasion on which he vomited. The pain became worse in the afternoon and shifted to the right iliac fossa. He was given an enema "with a good constipated result" but with no relief of the pain. It was at this stage he was sent into this hospital. The patient had always been a healthy man until two years ago. He then developed difficulty in getting his bowels to act and it was his custom to take a purgative every third or fourth day.

On admission his temperature was 99.4°F.; pulse 96; leucocyte count 11,200. He presented extreme tenderness over McBurney's point with right rectus rigidity. Per rectum nothing abnormal was noted. A diagnosis of acute appendicitis was made.

Under a general anaesthetic the abdomen was opened through a right grid-iron incision. Free fluid, straw-coloured, was present in the peritoneal cavity but the appendix appeared normal. The cecum was congested and oedematous. An attempt to deliver a loop of small intestine was found to be fruitless; instead, a doughy mass could be felt towards the left. The appendix was removed, the grid-iron incision closed and a paramedian incision made. The whole of the jejunum and ileum were found to be lying behind a layer of peritoneum. This layer was incised in its whole extent longitudinally and the small bowel set free. The terminal ileum one inch from its ileo-cecal valve passed under a narrow arch formed by this abnormal layer. The pillars of the arch were divided and the ileum freed; at the same time the normal colour of the cecum was restored. Apparently the arch was interfering with the blood supply of the cecum.

The abnormal layer of peritoneum was, in appearance and thickness, exactly similar to the rest of the peritoneum. The layer extended from the root of the meso-colon above to the brim of the pelvis below and from the inner aspects of the ascending colon across to the inner aspect of the descending colon at the junction of the visceral with the parietal peritoneum. The large bowel was normal in appearance and situation. The freed small bowel and mesentery were normal in appearance.

X-ray of the bowel taken after the operation showed both jejunum and ileum in normal position and no delay in the passage of the meal.

The patient was relieved of his pain and his bowels again acted regularly following the operation.

The interesting features of this case are:

1. The presence of an abnormal layer of peritoneum binding the small bowel down to the posterior wall.
2. The late onset of any symptoms of interference with bowel function.

I find it difficult to account for this abnormal layer. Lee McGregor does not mention it in his list of anomalies. The layer must have been formed about the time the small bowel returned to the abdominal cavity. Norman Dott describes this stage as follows:

"In the second stage of rotation at the tenth week, the mid-gut loop is returned to the abdominal cavity. As the small intestine enters the abdomen, the hind-gut and its mesentery which occupy the mid-line are pushed before them folded to the left and backwards."
Did the small bowel gain a covering from the mesentery of the hind-gut during this second stage? Is it a remnant of the vitelline sac? Opinions on these points would be welcome.

I should like to express my thanks to Brigadier Orenstein, D.M.S., U.D.F., for permission to forward this paper to the R.A.M.C. Journal.

REFERENCES.
McGREGOR, LEE. "Synopsis of Surgical Anatomy."
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CASE REPORT OF PSYCHOSIS FOLLOWING HEAT STROKE.
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The following case seems sufficiently clear as regards the aetiological relationship between an attack of heat stroke and ensuing psychosis to merit publication.

The patient, M. M., aged 20, has a family history free from neuropathic features and, prior to the present illness, appears to have been free himself from nervous complaint.

On 18.7.42 he was admitted to a military hospital suffering from heat stroke. He complained that day of giddiness and malaise, commenced to twitch and vomit and, soon after admission to hospital, he had convulsions and became unconscious.

His temperature on admission was 109° F. in the axilla. He was immediately placed on emergency treatment for hyperpyrexia with ice water. A blood smear was found to be negative for malarial parasites. A blood urea estimation gave a result of 60 mg. per cent.

Treatment was continued with ice water sponging and ice water enemata and he was given intravenous quinine, and morphia and hyoscine hypodermically.

On 20.7.42 his morning temperature was 102.6° F., he was only slightly confused and stated that he felt better. The same day he gradually became more confused and was inclined to violence and, at 5 p.m., his temperature rose to 106° F. and he again became unconscious and had to be treated in the heat stroke centre.

On 21.7.42 the morning temperature was 109° F., he appeared more rational but was slightly jaundiced.

On 22.7.42 the morning temperature was normal, he was still rather confused, blood urea 45 mg. per cent, Van den Bergh negative, direct and indirect. His general condition was worse in the evening and he was deluded, confused and incontinent.

Between 22.7.42 and 25.7.42 his temperature gradually subsided but his mental condition steadily deteriorated and, being extremely confused and disoriented, he was transferred to the neuropsychiatric centre.

On arrival at the neuropsychiatric centre his mental state was characterized by confusion and disorientation and he was apparently experiencing visual and auditory hallucinations. He was, however, able to give a general account of the details surrounding his illness.

His physical state was poor, his temperature was 100° F. in the axilla. Urine normal.

On 25.7.42 his temperature was 101° F., muscular twitchings had re-asserted themselves and he was considered to be dangerously ill. A blood smear was again negative for malarial parasites.

On 26.7.42 his temperature was 103° F., and during 25-26-27.7.42 he continued to require ice water treatment. He was again given intravenous quinine followed by quinine by mouth as a routine.

On 29.7.42 his condition appeared to be improving but he was still pyrexial with muscular twitchings and albumin was present in the urine.

On 1.8.42 his condition had commenced to deteriorate once more, his pulse was irregular and of poor volume and his temperature was 104° F. His mental state was characterized by terrifying visual and auditory hallucinations.