example of the inevitable exception which would have been even more distressing than it was had not the post-mortem examination revealed the fact that the liver was in such a state that eventual recovery was in all probability impossible. The disintegrating process was too acute, rapid, and widespread.

One other point may be raised. Did a metazoal parasite play any part in the pathology? There was no sign of any such, no fluke or other worm being seen with the naked eye or microscopically, but the previous eosinophilia has to be borne in mind, and if it does nothing else I think the record of this case goes to show that in any doubtful tropical illness, especially if it be abdominal, the fæces and the blood should be carefully and frequently examined and a differential leucocyte count should be made whenever and wherever feasible.

I am much indebted to Captain Sterling for permission to make use of my notes on this case.

Khartoum.

A CASE OF LINSEED POISONING.

BY J. O. HOLLICK, M.B. DURH., M.R.C.S. ENG.,
L.R.C.P. LOND.

THE following symptoms were produced in a patient of mine from the internal administration and the external application to a mucous surface of the seeds of *linum usitatissimum*, the common linseed or flax.

The patient, a robust man, five feet ten inches in height, and weighing 14 stones, consulted me on May 19th, 1903, for an inflamed and protruding internal hæmorrhoid which had recently come down as a result of sitting on a damp carriage cushion. The pile had become strangulated by the external sphincter and was giving him very severe pain. I ordered him to bed and as he had already applied anodyne ointments and lotions without obtaining relief, also directed that a hot linseed-meal poultice be applied to the inflamed and painful hæmorrhoid. This was done at about 3 P.M. and within four hours afterwards the patient experienced the following symptoms, which I have recorded in his own words.

"To commence with, I experienced a peculiar sensation in the throat and mouth, as though they were lined with velvet, the throat contracting considerably; there was a scaly feeling in the skin of the hands and feet. The skin all over my body, but more particularly on the thighs and legs, went 'anserine,' having the appearance as though a small bladder of water surrounded each hair at its root; the skin changed to a colour between that of red and purple; after this the irregularities on the skin became more pronounced. My face was discoloured and there was a rush of blood to my head. This discolouration of skin was accompanied by irritation. My hearing was affected. I went very deaf and I was also unable to see well. My heart was beating very forcibly and rapidly and I had a strong hysterical feeling. I counted my pulse and timed it to be 120 per minute. I felt on the border of delirium. My chest seemed restricted, particularly at the lower part. These symptoms lasted about three-quarters of an hour and on diarrhoea supervening they were very much mitigated. I then had an attack of vomiting, the vomit being of a dark colour, although I had taken nothing but milk foods for the past 48 hours. After this the symptoms gradually passed off, the velvety feeling at the throat and mouth being the last to disappear. On two previous occasions I had been 'poisoned' by linseed. On the first occasion I was walking through a field in the East of England where labourers were engaged in the operation of stacking the linseed and I ate a few of the seeds. Within three or four hours afterwards I experienced symptoms similar to those narrated above, only to a less degree. I ate about 12 seeds only and the duration of the symptoms was from two to three hours. About two years afterwards I ate two lozenges of 'linseed and liquorice' and the same symptoms were again experienced."

The patient sent for me at 8.30 P.M. and as he resided some distance out in the country I did not see him until 9 P.M.—i.e., two hours after the commencement of the symptoms. He was then in a state of collapse, with quick and feeble pulse, a feeling of nausea, and with cyanosed condition of the face and extremities. His respiration was quiet

and the diarrhoea had ceased but he had a marked condition of cutis anserina. He lay curled up on his side in bed and was very prostrate; he at once told me that he had been poisoned by linseed as recognised from his previous experiences. He was given an ounce of brandy in hot water and hot bottles were placed to his feet and body; he passed a good night and on the next day was in normal health again.

The ordinary linseed meal as sold in the shops is obtained by expressing the oil from the seeds and powdering up the marc which remains. The oil is found in the kernel of the seed and in the envelope or testa of the seed is found mucilage only. The fixed oil contains palmitin, stearin, and a glyceride of linoleic acid ($C_{16}H_{23}O_2$), the last in much the greatest quantity. It was probably owing to the presence of the last product in small amount in the linseed meal and its becoming absorbed into the system which gave rise to the symptoms recorded above, the patient evidently exhibiting in an extraordinary degree an idiosyncrasy to the action of the drug. Finding no mention of a similar case in any of the text-books on toxicology and forensic medicine I thought the publishing of the above case might be of interest to the profession and should be glad to hear if any other practitioner has had a similar experience.

Knowle, Warwickshire.

UNUSUAL CASE OF INTESTINAL OBSTRUCTION.

BY DUNCAN MACARTNEY, M.A., M.D. GLASG.,
SURGEON TO THE CANCER HOSPITAL, GLASGOW; ASSISTANT SURGEON
TO THE WESTERN INFIRMARY, GLASGOW.

AT the present stage of our surgical development every case of intestinal obstruction which is operated on successfully is of interest, and if it should happen to possess characteristics apart from the more common forms of obstruction from without as by bands, kinking, tumours, &c., the interest is all the greater. There seem to be fashions in surgery as in other domains of human effort. It used to be the vogue to look out for, and to describe, calculi of wondrous size and shape. Then we pondered on the various modes of closing hernial apertures and where best to leave the sac or its stump. Now the appendix and intestines with their surgical possibilities are receiving their turn. Obstruction from within the bowel of such severity as to lead to abdominal section is comparatively rare. The large majority of the cases of intestinal obstruction that have fallen to my care have been due to bands, contractions of the mesentery making acute kinks in the bowels, or an inflamed gland anchoring a knuckle of bowel, the appendix, or Meckel's diverticulum, and so producing a constricting factor to bring about the obstruction. It might be said, further, that if tuberculous disease of the abdominal glands did not exist we should have very few opportunities of practising intestinal surgery for obstruction.

Treves gives a threefold list of causes of this condition according to the nature of the obstructing agent. "1. Rounded or regularly-shaped bodies that may be considered capable of passing readily through the intestines: pebbles, stones, coins, &c. 2. Sharp-pointed bodies and substances of irregular shape that may readily catch in the mucous membrane, or are of an outline that would favour their becoming fixed in the alimentary passage. Such are pins, needles, hooks, plates carrying false teeth, *pieces of bone*, pieces of metal or of porcelain, nails, screws, and other such substances, many of which have been found in the intestine or have passed through it. 3. Indigestible materials of small size which are apt to accumulate until they form huge masses. Indeed, the largest foreign substances found in the alimentary canal have been of this character. They are composed of husks of the oat, vegetable fibres, *grape skins*, or of hairs, or of wool, or of yarn the foreign substance when not passed *per vias naturales*, is apt to remain lodged in special parts of the tube—viz., the stomach, the duodenum, the lower end of the ileum, the cæcum, or the rectum."

The case which I have to report illustrates the above quotation in that the obstructive agents belonged to the