

down to a healthy part of the ileum and removed by opening the bowel. The cause of the obstruction was seen to be a white object, which opened, revealing itself to be the pith of half an orange with some pips. The patient made an uneventful recovery.

#### CASE II

A pit engine-man aged 66 came to the out-patient department on Dec. 18, 1944, with the story that for a week he had been able to swallow fluids only. Solids would stick when half swallowed and were regurgitated. He had lost some weight and complained of weakness, and his appetite was poor. No previous history of dysphagia; no voice changes.

On examination he was rather thin—in keeping with his story of a week's starvation. There were no signs of anaemia, and no cervical glands were palpable; the thyroid was normal; laryngoscopy showed no signs of disease. Respiratory and other systems appeared normal. A barium swallow revealed a hold-up at the lower end of the oesophagus, rather suggestive of malignancy. There was no dilatation of the proximal part. Oesophagoscopy on Dec. 29 revealed a white foreign body lodged at the lower end of the oesophagus, which appeared inflamed. As it was too large to pull through the tube the oesophagoscope and mass were withdrawn together. On close examination the foreign body was seen to consist of the rolled-up pulp of half an orange. The oesophagoscope was then passed easily to the cardiac orifice. Apart from some inflammation at the level of the obstruction, the oesophagus appeared normal.

Next day the patient was able to take an ordinary diet with scarcely any discomfort. A barium meal shortly afterwards revealed a suspicion of either malignancy or ulceration at the cardiac end of the stomach. Since discharge the patient's condition has been satisfactory.

Our thanks are due to Dr. H. M. N. Calder and Mr. R. S. Venters, respectively, for permitting us to publish these cases.

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### Intestinal Obstruction by a Foreign Body

In view of the recent importations of dried fruits from abroad there is quite a risk of intestinal obstruction following the ingestion without mastication of large morsels and their subsequent swelling in the alimentary tract. Although the present case relates only to an ordinary orange, the further possibilities of such cases should be kept in mind.

#### CASE REPORT

A woman aged 60 was admitted on the evening of Feb. 24, 1945, to the Derby City Hospital with a history of acute epigastric pain and continual vomiting since 11 p.m. the day before. Her bowels had last acted the previous morning. Examination revealed no distension of abdomen, but faeces in the rectum and a moist tongue. There was a small mass to the left and above the umbilicus, probably omentum in a para-umbilical hernia. This did not seem sufficient cause for her acute distressing symptoms, and after being placed on intravenous glucose-saline a laparotomy was performed. There was an obstruction due to an oval-shaped mass in the ileum about 2 feet from the ileo-caecal valve. This was removed and the intestinal wall repaired. The para-umbilical hernia was found to have spontaneously reduced itself. Examination of the mass (see Fig.) showed it to be half an orange.



The patient has artificial teeth, but they are not used because she cannot "master them." She vigorously denies swallowing part of an orange, but admits to sucking a half of one about 26½ hours previous to the appearance of symptoms.

I wish to thank Sgt. Fayres for taking the excellent photograph.

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### Sulphonamide-resistant-Penicillin-sensitive

Just as bacteriological findings elucidated the treatment of empyema and explained the disasters after draining streptococcal effusions, so the dawn of penicillin with new rays of hope may help in cases of appendicitis where the streptococcal nature of the infection is known early enough and cultures show the sensitivity to sulphonamides and penicillin. This point is illustrated in a case of streptococcal subphrenic abscess following perforated gangrenous appendicitis recently admitted under my care.

#### CASE REPORT

A schoolgirl aged 16 was admitted to the Gloucestershire Royal Infirmary on Dec. 3, 1944, with the following history: On Nov. 30 she slipped in the mud when playing netball, and in the afternoon complained of severe pain in the right loin. This was followed by sickness during the night. The doctor called in suspected contusion of the right kidney. On the morning of Dec. 3 her condition was obviously serious and she was transferred to hospital. On admission her temperature was 101.8° and pulse 106, and the tongue was furred. She was tender in the right iliac fossa and the right loin and was resistant. Acute appendicitis was diagnosed, and an operation was performed immediately.

A muscle split incision revealed foul-smelling pus. The appendix was felt retrocaecally, but was not disturbed, and a wide drain was introduced. A course of sulphathiazole was given for five days, but her temperature remained between 100° and 102° and her pulse rate varied from 104 to 136 for two weeks. There was little discharge from the wound, but a faecal fistula developed, which closed after 10 days. There were no signs at the base of the right lung to suggest an abscess below the diaphragm and no collection could be felt either in the abdomen or in the right loin. There was, however, tenderness over the last rib. An x-ray examination with a portable apparatus was inconclusive. Sulphadiazine, 2 g. four-hourly, was administered at this stage, but though tolerated well did not influence the case clinically.

On Dec. 20 subphrenic abscess was suspected so strongly that exploration was decided upon. The twelfth rib was resected and an abscess between the liver and the diaphragm was evacuated by separating the liver from the thoracic wall. This was drained with a split tube. On Dec. 22 there was no improvement in her general condition, as would have been expected after drainage, but this was explained by Dr. E. N. Davey's report on the cultures of the pus—a growth of *Str. viridans*, which was sulphonamide-resistant but penicillin-sensitive. Dr. Davey advised immediate treatment with penicillin locally and systemically. This was carried out under his supervision.

The abscess cavity was injected with 2,500 units of penicillin four-hourly, and a solution of penicillin in saline (100,000 units per 1/2 litre) was introduced into the outer side of the thigh intramuscularly daily for 4½ days. On Dec. 23 her condition was critical, her pulse rate being 140, and she refused fluids.

The next afternoon there was a dramatic improvement in her condition. She was eager for her food and had obviously turned the corner. Her progress has been steadily maintained. Cultures from the wound on Dec. 24—48 hours after giving penicillin—grew a light growth of *Str. viridans*. After a further 48 hours the cultures were sterile.

#### COMMENTS

The knowledge that the cultures were sulphonamide-resistant and penicillin-sensitive undoubtedly saved this patient's life, for without it the permission to use penicillin would not have been granted. The effects of the penicillin were not obvious for 48 hours. It is clear, therefore, that there is no time to lose, and penicillin should be available immediately.

#### DR. E. N. DAVEY'S COMMENTS

This case stresses the importance of making a bacteriological examination of pus in all cases of infection, no matter how obvious the type may appear. The foul-smelling pus at the primary operation no doubt suggested a coliform infection, but, in view of the finding of streptococci in the subphrenic abscess, it raises the question as to the exact nature of the appendicular infection at the outset.

The necessity for the bacteriologist not only to report the nature of the organism but also to assess the sensitivity of the microbe to sulphonamides and to penicillin is also made evident, so that time and useless application of these new methods of treatment may be saved.

A difficulty in the application of penicillin treatment seems to be to ascertain when it is safe to discontinue its use. In this case we were guided (1) by the clinical improvement as shown by the return of pulse and temperature to normal; (2) by the fall of the leucocyte count from 16,600 per c.mm. (85% polymorphonuclears) at the time of the subphrenic abscess, collected on Dec. 16, 1944, to 8,600 per c.mm. on Dec. 27, 1944; and (3) by rendering the discharge from the wound sterile.

My thanks are due to Dr. Cairns Terry, physician, and Dr. E. N. Davey, pathologist, to the Gloucestershire Royal Infirmary, for their co-operation in this case.

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