Fortunately, mepacrine pigmentation scarcely ever tints the conjunctivae, so that differential diagnosis is easy.

The dosage of pamaquin was 0.01 g. t.d.s. for 3 to 5 days. It was given alone subsequent to the routine course. All patients received adequate therapeutic doses of iron.

In a few who were seriously ill on admission, including the cerebral malaria case, intramuscular quinine was injected with dramatic results, but it was never necessary to give more than two doses. The injections are painful and may give rise to necrosis, but they are not often necessary in this country. Since this series was concluded a trial has been made of an almost painless quinine solution, but its therapeutic activity seems to be far below that of the oral course which has here been described.

Results

The clinical results have been most gratifying and there have been no deaths in the series. All the patients were in good health when discharged, none has returned with a recurrence, and we have had no inquiries from other hospitals for clinical notes of these patients. However, sailors are nomadic persons, and it may well be that relapses have indeed occurred.

In the 44 patients who had fever on admission defervescence occurred on an average less than 24 hours from starting treatment, and the longest time fever persisted was 72 hours, in two cases only. The average stay in hospital was 27 days, but in most cases a part of this time was spent at our convalescent home, and some of the patients required treatment for other conditions. If the length of detention should require further justification, it may be found in the imperative need to restore seamen to complete health before permitting them to return to their arduous duties, and, finally, in the need to restore their haemoglobin to normal level.

Summary

A series of 60 cases of malaria, of which 57 were subtertian, is described.

Clinical examination has shown that neither fever nor splenomegaly can always be relied upon to suggest diagnosis, but anaemia is generally present.

A course of treatment combining mepacrine and quinine was found satisfactory.

The results of treatment were uniformly good, but no extensive follow-up was possible.

My thanks are due to Sir Philip Manson-Bahr and to Dr. Arthur Davies for their constant help and advice.

Medical Memoranda

A Case of Extreme Exomphalos

Exomphalos is a well-recognized congenital malformation which is said to occur once in every 6,000 births. It is due to the non-closure of the abdominal wall, presenting a picture which, normal in early development, has persisted to term. The case described is one in which the defect was carried to the extreme.

CASE HISTORY

Mrs. A., aged 20, a primipara, was admitted to hospital in labour. Medical assistance was sought on account of a loop of intestine being delivered with the shoulders. This belonged to the foetus (not to the mother, as the midwife at first thought). Delivery was completed. The child, a female, was in good condition apart from a mass consisting of coils of intestine lying on the abdominal wall. This mass was gangrenous and distended. Removal was the only course open.

Operation was performed an hour after delivery. The object of the laparotomy was to remove the dead tissue and to see the exact nature of the lesion. No anaesthetic was given, and a right paramedian incision was made. The gut appeared alongside the umbilical cord, on the inferior aspect; the latter was normal. The exit was small, approximately an inch across, and the parietal peritoneum ended at the edges of the opening. At the upper end viable intestine was found at the end of the second part of the duodenum, and at the lower end the pelvic colon. At each end the gut was divided and a small tube ligatured in and brought out through the abdominal wound. Apart from a large liver no other abnormalities were seen. During the operation the child did not give any cause for anxiety.

It lived for six days, at the end of which death occurred from peritonitis. No other congenital defects were found at the necropsy.

The Specimen.—This consisted entirely of intestine. It began at the third part of the duodenum and ended at the beginning of the pelvic colon.

Small Intestine.—The upper part was discoloured small intestine surrounded by a mass of myxomatous tissue. The mesentery was twisted on its axis, forming a volvulus: from the appearance of the gut it was a recent development, but was not considered viable. Below this the ileum was lost in the large intestine and was found to be an intussusception of the ileo-caecal variety. This was reduced with difficulty.

Large Intestine.—This was very dilated and the taenia coli were not evident. The contents were fluid and contained much vernix caseosa. The mesentery was very thick, consisting of myxomatous tissue. At the lower end there was a constriction where it was obstructed at the exit from the abdomen.

The intestine thus presented a picture of obstruction of the large bowel with an intussusception and volvulus of the small bowel.

COMMENT

It is considered that the foetus *in utero* had a marked exomphalos containing the major part of the bowel. During the descent in the second stage of labour, lasting four hours, the peritoneal covering was torn off and the large bowel was compressed between the uterus and the foetal abdominal wall, obstructing the blood supply. Ensuing peristalsis resulted in the intussusception. The volvulus, as mentioned, was recent, and was formed towards the end of the second stage of labour.

There has been much discussion as to the absorption of glucose from the stomach. In this case part of the duodenum was present, but it was considered worth while to investigate the blood sugar after a known dose of glucose. 10 g. of glucose was given by mouth, and the blood sugar was estimated at half-hour intervals, the blood being taken from the anterior fontanelle. The result showed a curve which approximated to the normal adult curve, though the basic level was very low; the fasting level was 44 mg. per 100 c.cm. Considering that the child lived for six days on glucose given by mouth, good evidence is afforded that glucose is absorbed from the stomach and upper duodenum.

I wish to express my thanks to Dr. Daley, Medical Officer of Health, County Hall, for permission to publish this case; to Dr. E. Moore, obstetrician, Lambeth Hospital, for calling me to see the case; and to Dr. R. F. L. Hewlett, group pathologist, Lambeth Hospital, for the blood-sugar estimations.

Lambeth Hospital.

R. F. HENDTLASS, M.R.C.S.

Interstitial Emphysema during Labour

The following case is reported in view of its unusual character and rarity.

A primipara aged 17 was admitted to hospital in the early stages of labour and suffering from acute nasal catarrh with severe bronchial cough. Her previous medical history was good, with the exception of her grandfather, who had died of pulmonary tuberculosis, and her father, who had died at the age of 38 from meningitis. Labour started at 2 a.m. on Oct. 13; the membranes ruptured at 11.35 a.m. on the same day, and there was full dilatation of the cervix at 11.15 p.m. The second stage was characterized by really severe pains. The baby was born at 1 a.m. on Oct. 4.

At 12 midnight, one hour before the baby's birth, it was noted that the right side of the mother's face was rapidly swelling, and she complained of stiffness on that side of the neck. Within a quarter of an hour the face was completely unrecognizable: the eyes were quite closed and the cheeks had merged flush with the nose, and the lips were so swollen that the patient had difficulty in speaking. The swelling involved the head, including the crown of the scalp, the neck, and the upper part of the chest; in diminishing severity it also involved the whole area back and front of the chest down to the costal margins. The diagnosis of interstitial emphysema was made, all areas emitting the characteristic crackling crepitus and the skin giving the resonance to light finger-tapping similar to that of the surface of a sorbo ball. The pelvic measurements were not unduly small, and the baby at birth weighed 7 lb. 8 oz. The total length of labour was 23 hours 10 minutes. On clinical examination no chest lesion could be detected, neither could the patient recollect any special sensation in her chest before the onset of emphysema. An x-ray examination of the pulmonary fields was negative and the blood sedimentation rate normal. One week after labour the greater part of the swelling had subsided and the only crepitus that could be elicited was situated over the upper part of the chest on each side of the sternum. The puerperium was uninterrupted, and at no time did the patient appear to be affected by her condition.

ROGER STANLEY.

E. E. Katwinkel (*New Engl. J. Med.*, 1942, 226, 419) records a case of typhoid fever in a woman, aged 59, in whom sulphathiazole and sulphanilamide in no way influenced the course of the disease and failed to clear the stools of *Bact. typhosum*. The stools, however, became and remained negative after eight days of intense sulphaguanidine treatment.