was furred, the heart and lungs were normal, and the blood pressure was 150/80. There was no lymphadenopathy. The abdomen was slightly distended, and the liver tender and enlarged three fingerbreadths below the right costal margin. Rectal examination was normal, but the stools were clay-coloured. The urine contained a large quantity of bile. The haemoglobin was 13.9 g.%; white blood count, 9,500, with a normal differential count; blood group, O Rh positive; serum bilirubin, 2.9 mg. per 100 ml.; serum alkaline phosphatase, 30 K-A units; thymol turbidity, 1 unit; zinc sulphate turbidity, 6 units; blood urea, 38 mg. per 100 ml. The pre-operative diagnosis was in favour of an obstructing neoplasm.

Operation.—An exploratory laparotomy was performed by Mr. J. B. Hume through a right paramedian incision on August 6. The liver was enlarged, but no gall-bladder could be seen. The common bile duct, when dissected, was found to be dilated into a tube 2 cm. across, and impacted within it was a single stone. On the right side of the duct at the porta hepatis there was a small body 1 cm. in diameter, which was removed for section. There was no connexion between this mass and the bile duct. The common duct was explored, but no further stones were found; a T-tube was left in the duct.

The patient's post-operative course was uneventful. The jaundice rapidly faded, and the stools and urine returned to normal. Ten days after operation a cholangiogram showed a normal biliary tract, but no trace of a cystic duct or an intrahepatic gall-bladder. When last seen (October 29, 1953) he was well.

Histology.—Section of the mass removed showed it to be a small nodule with a hollowed centre; there was a fibromuscular coat and a mucous membrane having the histological characteristics of gall-bladder mucosa. There was excessive underlying fibrosis.

COMMENT

Anomalies of the biliary tract are common, occurring in about 10% of necropsies, but absence of the gall-bladder is exceedingly rare. Latimer, Mendez, and Hage (1947) collected only 71 cases from the literature; to these they were able to add three of their own. According to Gross (1936) the probable cause is a failure of the caudal portion of the embryological hepatic diverticulum to become tubular.

In our case the bud had become completely separated from its parent stem. In the previously reported 31 cases found at operation, 11, like ours, had an enlarged and dilated common bile duct containing stones. The discovery of this rarity was a welcome finding, and reversed a gloomy prognosis.

We are grateful to Mr. J. B. Hume for permission to publish this case, and to the Pathology Department of St. Bartholomew's Hospital for the histological report.

P. J. BANKS, M.D., M.R.C.P.,
K. LAWRENCE, F.R.C.S.,

St. Bartholomew's Hospital, London.

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Provocative Emetine in Diagnosis of Amoebiasis

It has often been suggested that examination of the stools after a "provocative" dose of emetine may yield a positive result in patients whose stools have previously been negative for *Entamoeba histolytica*. Hill (1946) recommended this method and stated that it was used in the Services as a routine in suspect but unproved cases. He regarded the effect of emetine in small doses as "provocative or stimulatory to the trophozoite." In 1947 he again stressed this, while evaluating various methods of diagnosis for intestinal amoebiasis. Brown (1946) was even more emphatic; he practised this method for eighteen years and found it to "have rarely failed." He stated that when conditions become unfavourable for amoebae (due to emetine) cysts are passed out to seek a more accommodating host.

Uninucleate and binucleate cysts were seen by him, the reason for this, he believed, being that the parasites were "finding a new host in a hurry."

However, Lawrence (1946) and Wenyon (1947) thought this method to be irrational and based on a mistaken analogy with the provocative dose of neoarsphenamine in serological diagnosis of syphilis. Dobell and Laidlaw (1926) reported that, in liquid medium, 1 in 5,000,000 of emetine hydrochloride was lethal to *E. histolytica*. The mode of amoebicidal action of emetine hydrochloride is not well known. However, there is nothing on record to show that emetine in small amounts is stimulatory to the parasite *in vitro*.

The data for or against the use of "provocative" emetine in the diagnosis of amoebiasis cannot be regarded as satisfactory. The object of the present study is to place on record our observation on the value of this method.

MATERIAL AND TECHNIQUE

Two groups were studied. We selected 18 patients who had shown signs and symptoms suggestive of intestinal amoebiasis, but in whom a single stool examination was negative. Three of them had been positive for *E. histolytica* in the past, but the symptoms had relapsed after varying periods of treatment, and two had an enlarged and tender liver. They were given 3 gr. (0.2 g.) of emetine bismuth iodide, and the next day, after a saline purgative—1 oz. (28 ml.) of saturated solution of sodium sulphate—as recommended by Hill (1946), the stools were examined. A similar test was carried out on 18 positive cases of amoebiasis passing cysts or trophozoites, or both, of *E. histolytica*.

In the first group, only one case was rendered positive for *E. histolytica*. Both cysts and trophozoites were found (Table I). The other 17 cases were negative. The test was repeated in the positive case, and after a second dose of emetine the stool was found to be negative.

In the second group only five remained positive for *E. histolytica* after "provocative" emetine (Table II). In the other 13 cases the stools were rendered negative. Even in the five cases which were still positive, the number of parasites was considerably reduced, and they appeared to have degenerated.

TABLE I.—Provocative Emetine in 18 Suspected Cases of Amoebiasis

Positive after provocative dose of emetine	..	..	..	1
Negative	..	..	..	17

TABLE II.—Provocative Emetine in 18 Positive Cases of Amoebiasis

Positive after provocative dose of emetine	..	..	..	5
Negative	..	..	..	13

DISCUSSION

The above study shows that small doses of emetine have no stimulatory effect on *E. histolytica*. On the other hand, they have apparently rendered scanty infection still more scanty and diagnosis more difficult. This is amply borne out in the second group, where "provocative" emetine made the stools amoebae-free in 13 cases and in the remaining 5 the number of amoebae was considerably reduced and they appeared to be degenerating. In one case in the first group, however, *E. histolytica* was found after giving a dose of "provocative" emetine. This may be attributed to the effect of the purgative administered the next day. This method of administering "provocative" emetine cannot be recommended for diagnosis of suspected cases of amoebiasis in which ordinary smear examination is negative.

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H. N. RAY, M.Sc., Ph.D., F.N.I.,
H. K. CHUTTANI, M.B., D.T.M.,
Department of Protozoology, School of Tropical Medicine,
Calcutta, India.

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