



pus only be present at the time of its administration, it may so act by killing the amœba present, and stopping a further supply from the gut, as to put the patient in such a favourable condition that encystment may occur. This latter, however, must be a rare event. In the medical treatment of "hepatitis" surgeons only see our failures—those, in fact, who have come to us too late; our successes walk out of the wards. As to the administration of Ipecacuanha. More than 20 years ago I received the information, I believe, from the late Surgeon-General Maclean—so the idea hails from Madras,—that by combining tannic acid with Ipecacuanha, vomiting may be prevented; experience has shown the truth of this statement. I mix 20 or 30 grs. of powdered Ipecacuanha radix with 10 grs. of tannic acid, flavoured with a few drops of oleum anisi and roll loosely into 5 gr. pills. Then the patient is directed to swallow quickly with as little water as is possible and then lie prone. There may be some nausea, but in nine cases out of ten, if properly carried out, there is no vomiting. How it acts I do not know, but it may be by counteracting some of the effects of the Ipecacuanha on the stomach wall. Ipecac. is a gastric irritant and greatly increases the flow of mucus in the stomach, whilst tannic acid is an astringent and checks the flow of mucus.

#### EFFECT OF IPECACUANHA ON THE LEUCOCYTE CURVE IN AMŒBIC HEPATITIS.\*

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DURING the course of an enquiry on dysentery and abscess of the liver, which I conducted last year with Captain Wells, I.M.S., at Bombay, the blood changes and effects of treatment were studied in a number of cases of these diseases. In the Report of the enquiry which I submitted to the Government of India, these and other results are dealt with in full; but, by the kind permission of the Sanitary Commissioner with the Government of India, I am enabled to contribute to the debate this evening the clinical notes, records of the blood examinations and treatment of a few of the cases observed by us, illustrating the subject under discussion, namely, the Ipecacuanha treatment of acute hepatitis.

That the problem of the treatment of hepatitis and abscess of the liver is an important one is seen from the statement that the mortality from liver abscess in the British Army in India stands next to enteric fever, which has the highest death-rate.

It is admitted generally at the present time that tropical abscess of the liver is caused by

the invasion of the liver tissue by amœbæ, and is secondary to a primary amœbic infection of the large intestine. The primary lesion of the intestine may be very slight and give rise to no definite symptoms of dysentery. For the successful treatment of amœbic infection of the liver it is important that the diagnosis should be made at the earliest stage possible. Our observations have confirmed those of Rogers, that the leucocyte count gives the earliest information on this point. In ordinary mild cases of amœbic dysentery the temperature and total leucocyte count remain about normal; if a rise of the temperature and total leucocyte curves take place, it is very probable that the infection is no longer confined to the large intestine, but has extended to the liver, and sooner or later definite signs of hepatitis will develop. The leucocytosis is moderate, and the normal relative proportion of the polynuclear leucocytes is maintained as a rule. A very high leucocytosis is met with sometimes in severe cases of dysentery with extensive lesions of the bowel alone. As hepatic signs may not develop until after the leucocytosis, the importance of a blood examination in the early diagnosis of this condition is obvious.

The effect of administration of full doses of Ipecacuanha in early cases of amœbic hepatitis, which came under our observation, was to produce a fall both in the temperature and leucocyte curves, and the symptoms disappeared. In a control case no such improvement was noted. Observations were made, also, on a case, in which two amœbic abscesses in the liver had been opened, and, as the temperature still remained elevated, Pulv. Ipecac. in full doses was given, with the result that the temperature and leucocyte curves fell shortly afterwards to normal, and the patient recovered. In this case the drug appeared to have limited the amœbic infection and prevented a further extension in the liver. These observations confirm the views expressed by Rogers\* on the value of Ipecacuanha in the treatment of these cases.

I now proceed to detail the records of the cases, and the first to be described illustrates all the points referred to—the elevation of the temperature and leucocyte curves; the recovery of amœbæ from the stools, although no definite history of dysentery was given; and the favourable effects of the administration of full doses of Ipecacuanha on the course of the disease.

Case No. 215.—L. D., age 40, Goanese cook. May 17th, 1909.—Patient was admitted on 12th May, complaining of pain in the right hypochondrium of five days' duration. The onset was very sudden with severe pain in that region, nausea and vomiting. Patient felt feverish, weak, and ill.

\* Read at the meeting of the Medical Section of the Asiatic Society of Bengal on 13th July 1910.

\* Fevers in the Tropics, 1910.