# LIVER FLUKE IN THE COMMON BILE DUCT

BY

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Liver-fluke infestation in man has been recorded in fewer than 50 cases in Europe (Stitt, Clough, and Clough, 1939), and in only two reported cases has a liver fluke been surgically removed from a common bile duct. We have therefore thought it worth while to report three cases in which the liver fluke was found in the common bile duct at operation. Two of these occurred in Bath and one in Plymouth, and all within the last decade.

## Case Reports

*Case 1.*—A married woman aged 50 was admitted to the Royal United Hospital on May 12, 1939. She complained of flatulence and attacks of epigastric pain for over ten years. A few weeks before admission she had a typical attack of gall-bladder colic followed by jaundice which lasted for two weeks. Laparotomy was carried out on May 15. The gall-bladder was distended and contained a few small stones; the common bile duct was greatly dilated, and on opening it three liver flukes and some biliary mud were removed. Post-operative convalescence was normal, and the patient was discharged home after 14 days. Unfortunately we have been unable to trace her subsequent history. The pathologist reported that the liver flukes were typical *Fasciola hepatica*. No eggs were seen in the bile or faeces collected after operation. A white cell count taken three days after operation showed a mild leucocytosis but no eosinophilia.

*Case 2.*—A married woman aged 50 was admitted to the Royal United Hospital on May 30, 1947. For three years she had complained of epigastric pain and flatulence. On one occasion after a severe bout of pain she had been slightly jaundiced. A cholecystogram showed good dye concentration and normal contraction of the gall-bladder after a fatty meal. On June 5 laparotomy was carried out. The gall-bladder was found to contain stones, and the common bile duct was dilated and inflamed. The liver was of normal size and appearance. On opening the bile duct one liver fluke was removed together with muddy bile but no stones. The gall-bladder, which contained a few pure pigment stones, was removed. The fluke was again typical *F. hepatica*. A white cell count taken two days after operation showed a mild leucocytosis but no eosinophilia. No eggs were seen in the bile or faeces collected after operation. Convalescence from the operation was uneventful, and the patient was last seen on August 25, 1947, when she was feeling quite fit and had no flatulence. Her blood count was then normal. This patient volunteered that she was very fond of watercress.

*Case 3.*—A married woman aged 58 was seen at Plymouth on October 31, 1948. For four years she had had intermittent attacks of severe right subcostal pain. The attacks occurred each day, and she suffered from flatulence. Her appetite was poor, she had lost a considerable amount of weight, and was constipated. In May, 1948, she had passed a tarry motion. Laparotomy was carried out on November 5 by Mr. Wilson, of Plymouth. The gall-bladder was opaque and thickened, and a mass was felt in the region of the pylorus that seemed to be a posterior duodenal ulcer. The liver was normal. The dilated common bile duct was opened and explored, and a few specks of biliary mud followed by a large liver fluke were evacuated. The liver fluke measured 15 by 8 mm. Posterior gastro-enterostomy, cholecystectomy, and appendicectomy were performed and the common bile duct was drained. The gall-bladder was thickened but contained no stones. The patient made an uneventful post-operative recovery and was last seen on November 29, 1948, when she was in good health and was putting on weight.

## Discussion

The liver fluke (*F. hepatica*) normally lives in the bile ducts of sheep and cattle, where it produces biliary cirrhosis—a disease known in sheep as liver-rot.

An essential part of the life history of *F. hepatica* has to be spent within the little water-snail (*Limnaea truncatula*), so that faeces must be dropped on wet land if the larvae are to be taken up. Animals and man are infected by ingesting larvae which have left the dying water-snail and encysted themselves on blades of grass or watercress leaves. Liver-fluke disease in sheep and cattle is widespread in Western Europe and in this country, and its incidence is favoured by undrained pastures and wet seasons.

In most previously recorded cases in man the disease has been characterized by irregular pyrexia, rigors, and anaemia. Some cases have had upper abdominal discomfort suggestive of cholecystitis, but jaundice has been rare. Blood examination usually showed a marked leucocytosis and eosinophilia, and the diagnosis was made by finding ova in the faeces. In contrast to such cases, which have obviously been heavily infested, the cases here reported showed no severe constitutional upsets, and there was nothing in the symptoms or pathological findings to suggest parasitic infestation. The operations were carried out for chronic cholecystitis, and the liver flukes were found only because a dilated common bile duct necessitated exploration.

It seems possible that the incidence of liver fluke in the common bile duct may be much commoner in this country than is generally realized; and the occurrence of a fourth case in the West of England recently reported (O'Donnell, 1949) with similar clinical and operative findings supports this contention.

In none of these cases was a diagnosis made before operation, but in each case, including Walton's, a dilated common duct was found in the absence of jaundice. We think, therefore, that this finding should suggest the possibility of the presence of a liver fluke in the common bile duct.

We are grateful to Mr. Edric Wilson, of Plymouth, for his kindness in allowing us to include his case.

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Under the Nurses Act (Northern Ireland) of 1946 the statutory restriction in Northern Ireland on the use of the title "Nurse" came into effect on March 16. The statutory requirements for the licensing of agencies for the supply of nurses also operates. The Act reserves the title "Nurse" for use only by persons who are either State-registered or enrolled assistant nurses, but the regulations will permit other persons who have certain nursing qualifications or nursing experience to use the title. From March 16 it became an offence for any person to conduct an agency for the supply of nurses otherwise than in accordance with the statutory requirements. Such agencies must be duly licensed by the Ministry of Health and Local Government.