Biochemical Values

	1st Admission	2nd Admission (Days after)							
		0	1	4	17	30	60	120	360
Bilirubin ($\mu\text{mol/l}$)	170	140	110	140	60	25	20	12	14
Alkaline phosphatase (K.A. units/100 ml)	24	30	31	35	13	10	12	9	8
SGOT (R.T. units/ml)	65	65	55	60	25	27	20	21	20
Eosinophils (" and absolute count)	not done	18/1500	15/1230	58/5974	10/760	14/976	3/162	4/224	3/200

Conversion: SI to Traditional Units—Bilirubin: $1 \mu\text{mol/l} \approx 0.06 \text{ mg/100 ml}$.

teristic of Crohn's disease. The area was resected and the abscess drained. Histological analysis confirmed Crohn's disease of the terminal ileum. Despite a deep vein thrombosis his subsequent progress was satisfactory and he remained well.

Discussion

In north-east Scotland the single most common cause of psoas abscess has been reported to be Crohn's disease.¹ A psoas abscess due to Crohn's disease is the result of direct contact of any fissure in ulcerated intestine which penetrates backwards, on the right from the terminal ileum and on the left from jejunum or sigmoid colon. The pathogens in the abscess, formed by spread from adjacent organs or Crohn's disease, are usually a mixture consisting predominantly of *Escherichia coli* and anaerobic bacteria. This is in direct contrast to the "spontaneous" variety of abscess, where staphylococci predominate.^{3, 5} Bacteriological examination may therefore be useful in differentiating the aetiology,² as may recognition of the fact that over half the spontaneous cases occur in children under 15 years,³ with a predominance in boys. Poor nutrition and socioeconomic background have also been emphasized as being important underlying factors in these spontaneous cases.⁵

During the last five years we have seen only one other emergency case of psoas abscess, and that was a "spontaneous" staphylococcal abscess. No case of tuberculous psoas abscess has been reported.

Though Crohn's disease presenting as pain in the right iliac fossa is not uncommon, the initial presentation of Crohn's disease as a surgical emergency with a psoas abscess, as in our case, is rare. The change in aetiology of psoas abscess and particularly its association with Crohn's disease should be emphasized. In our case this was not appreciated, and on reflection ileal resection as well as drainage of the abscess at the initial operation would have been the treatment of choice.

We thank Mr. W. K. Eltringham for permitting us to report details of a patient under his care.

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A Case of Clonorchiasis in England

Infection with the Chinese liver fluke, *Clonorchis sinensis*, is endemic in the Far East, where it is responsible for considerable morbidity and mortality.¹ The adult flukes live in the bile ducts and produce eggs which are passed in the stools. The life cycle involves two intermediate hosts: a freshwater snail and then a fish, often of the carp family. Man becomes infected by eating the cysts present in the flesh of raw or partially cooked fish. Patients with clonorchiasis seen in the

West are usually immigrants who have recently left endemic areas. The following case occurred in a man who had been in Great Britain for 12 years before clonorchiasis was diagnosed.

Case History

The patient, a 38-year-old man from Hong Kong, came to Britain in 1961. In 1967 he began to have recurrent attacks of epigastric pain, lasting for a day and associated with vomiting. These recurred about every two months. In October 1973 a more severe episode lasting for several weeks and in which the pain radiated to the back necessitated admission to another hospital. He noticed for the first time that his sclerae were yellow and infective hepatitis was diagnosed. Biochemical values obtained are shown in the table. He improved spontaneously, left hospital, but was then admitted almost immediately as an emergency to the Newcastle General Hospital with a recurrence of his symptoms.

He was afebrile (and remained so), his liver was palpable 4 cm below the costal margin, and his spleen was slightly enlarged (see table). Serum amylase was normal. A clinical diagnosis of clonorchiasis was made, but repeated stool specimens were examined for parasite eggs without success. A week after admission duodenal aspiration was performed and the fluid was found to contain a few ova of *C. sinensis*. The complement fixation test for *C. sinensis* (available later) was positive at 1/160.

Intravenous cholangiography showed filling defects in the common bile duct, and the gallbladder. Because of these, and the continuing evidence of obstruction, surgical exploration was undertaken (day 13). Adult flukes were found in the left and right hepatic ducts and there was slight stenosis of the right hepatic duct. Chronic pancreatitis was present. A liver biopsy showed bile stasis, and an inflammatory infiltrate of lymphocytes and eosinophils. There was no bile duct proliferation, cirrhosis, or malignancy. After cholecystectomy, a T-tube was inserted and many ova were found in the bile draining from this, until it was removed uneventfully on the seventh post-operative day. He was treated with bithionol, in a dose of 50 mg/kg on alternate days, to a total dose of 42 g, suffering transient nausea initially but no other side effects.

Comment

Parasitic disease must be considered in any immigrant. The diagnosis of clonorchiasis may be easy if sufficient eggs are produced to appear in the stools, but duodenal aspiration is often more helpful. Eosinophilia is a valuable clue when it occurs, though in some cases a polymorphonuclear leucocytosis is more common.²

Infection is frequently symptomless, but there are many complications, of which the most common are bacterial cholangitis, cholelithiasis, acute pancreatitis,³ and cholangiocarcinoma.⁴ It is estimated that 15% of the cases of liver carcinoma in Hong Kong are directly due to clonorchiasis.⁴

Bithionol (2,2'-thiobis 4,6-dichlorophenol) has replaced chloroquine as the drug of choice in the treatment of clonorchiasis. The treatment remains unsatisfactory and surgical intervention is often required in the management of obstruction, recurrent infection, or carcinoma.

Our patient has now been asymptomatic for one year and repeated duodenal aspirations have shown no ova. Cholangiography now shows a normal duct system, and all liver function tests are normal (table).

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