Multiple listerial liver abscesses

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SUMMARY Hepatic involvement in listeriosis is uncommon in adults. Cases previously reported include three presenting as acute hepatitis and three of listerial liver abscesses found at necropsy. We report a case of multiple listerial liver abscesses. We believe this to be the first time this diagnosis has been made in a living patient.

Case report

An 81 year old farmer was admitted with lethargy and anorexia of eight weeks' duration. Two days before admission he developed dyspnoea and ankle swelling. He took glibenclamide for diabetes mellitus and indomethacin for rheumatoid arthritis. He lived on a farm raising cattle. He neither smoked nor drank alcohol.

On examination he appeared unwell. He was afebrile. The liver was enlarged four fingers' breadth below the costal margin and was hard and non-tender. Crepitations were audible at both lung bases and pitting oedema to the knees was noted. There was no neck stiffness.

Investigations showed haemoglobin concentration 10 g/dl with a normochromic normocytic blood picture, white blood cell count $12.3 \times 10^9/l$ with a neutrophilia. Liver function tests were bilirubin 7 $\mu\text{mol/l}$ (0.41 mg/100 ml), alanine aminotransferase 11 IU/l, alkaline phosphatase 268 IU/l (normal range 40-130 IU/l) and albumin 39 g/l. International normalised ratio was 1.1. Blood cultures were sterile. A chest radiograph showed a small left pleural effusion.

Diuretics were started. Abdominal ultrasound showed multiple echo-poor areas in the right lobe of the liver, thought to be malignant deposits. A liver biopsy obtained pus containing no malignant cells.

Bacterial examination revealed *Listeria monocytogenes* serotype 1 with serum antibody titres of 256. Ampicillin was started and using an 18G needle the abscesses were repeatedly drained under ultrasound guidance. After two weeks no abscess cavity re-

mained. The patient improved. Three months later he was well. Repeat ultrasound showed a normal liver.

Discussion

While *Listeria monocytogenes* has been recognised as a cause of neonatal and adult sepsis since 1929, hepatic infection by the organism is uncommon outside the perinatal period. Reviews of the literature indicate that it usually presents as meningo-encephalitis. Other forms of the illness including endocarditis, pneumonitis and conjunctivitis are reported less frequently.

The few reports of adult hepatic listeriosis include that of a young woman presenting with fever, jaundice and abnormal liver function tests. Blood cultures yielded *Listeria* and the patient improved on ampicillin. There was no report of liver imaging.¹ In a report of three cases of adult listeriosis presenting as an acute hepatitis,² two patients responded well to ampicillin. One of these underwent liver scanning which showed no focal abnormality. The third patient died shortly after presentation. Post mortem examination revealed multiple listeria liver abscesses. Liver abscesses yielding listeria have also been found at necropsy in a patient with haemochromatosis and listerial meningitis,³ and in a Polish farm worker dying of listerial septicaemia.⁴ Nodular hepatic lesions have been seen at necropsy in two adults dying from listeriosis.^{4,5}

A diabetic presenting with nausea and fever was found to have listerial bacteraemia.⁶ He did not improve with penicillin and gentamicin and subsequent liver imaging showed a mass in the left lobe of the liver. An abscess was found and drained at laparotomy. Amoxycillin was added and the patient

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Received for publication 21 May 1987.

made a good recovery. Culture of the drainage fluid was negative.

Our case emphasises the value of biopsying suspected malignant hepatic lesions. The patient differs from previously reported cases of hepatic listeriosis in that a bacteraemia was not shown. He responded well to abscess drainage and antibiotics, as did the patient reported by Al Dajani and Khatib.⁶ Thus listerial liver abscesses appear to be eminently treatable if diagnosed sufficiently early.

We thank the Listeria Reference Laboratory, Central Public Health, for their help in serotyping the isolate and determining antibody titres.

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