Listeria meningitis and paté

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Abstract
Listeria meningitis occurred in a 63 year old man who was in complete haematological remission following chemotherapy for acute myeloid leukaemia. The patient had followed Department of Health advice to immunocompromised patients and had avoided soft cheeses, cook-chill meals, and salads. He had, however, recently eaten paté produced in Belgium. This was no longer available for examination but a coincidental survey of paté in the Cardiff area found Listeria monocytogenes in 16 out of 73 samples. Paté should be included in the list of foods to be avoided by immunocompromised patients.

The risk of Listeria monocytogenes infection in patients who are immunosuppressed or pregnant is well recognised.1 In a letter to doctors in February 1989 the Department of Health advised that such patients should avoid soft cheeses and thoroughly heat cook-chill meals. This advice has been given to all our patients who are immunocompromised. Despite this, we report a case of listerial meningitis which we suspect was contracted from food.

A 63 year old man presented in September 1988 with myelodysplasia; by December 1988, he had progressed to acute myeloid leukaemia. A complete remission resulted from a single course of combination chemotherapy. Two further courses of consolidation chemotherapy had been given, the last of these in early April 1989, and he had remained well in complete haematological remission. On 22 June 1989 he presented with a short history of dysuria and frequency. He was febrile with no focal signs of infection. Azlocillin and gentamycin were given after appropriate cultures had been taken. Within four hours of admission, however, he had become unresponsive with pronounced neck stiffness, but no focal neurological abnormality or papilloedema. Cerebrospinal fluid had a protein content of 7-15 g/l (normal less than 0-45 g/l), glucose concentration of 3-3 mmol/l (blood glucose 14-5 mmol/l), and a white cell count of 1-92 x 10^9/l of which 75% were lymphocytes, 25% were neutrophils, and no blasts were seen. A bone marrow aspirate showed no evidence of relapse and his peripheral blood neutrophil count was 6.4 x 10^9/l with no morphologically abnormal cells.

He had several grand mal fits and one focal fit affecting the left arm and leg. A computed tomogram showed no focal deposits, but some evidence of ventricular dilation. He required ventilation and was initially treated with benzyl penicillin, chloramphenicol, and acyclovir as no organisms had been seen on Gram stains of the cerebrospinal fluid. Two days after admission L monocytogenes was grown from cultures of the cerebrospinal fluid, but not from blood cultures. Treatment was continued with benzyl penicillin, 24 MU daily for two weeks, and the patient slowly improved, but had some residual memory loss. A repeat computed tomogram was normal, showing resolution of the ventricular dilation. Further questioning of the patient and his wife confirmed that they had avoided all soft cheeses, cook-chill food, and salads, but they had eaten Belgian paté purchased at a local supermarket.

The serotype of L monocytogenes isolated (4b(X)) from the cerebrospinal fluid of this patient is the most common cause of meningitis in Britain (Dr J McLauchlin, Central Public Health Laboratory, Colindale, London: personal communication). During a coincidental survey of paté in the Cardiff area,2 16 of 73 samples, yielded similar strains to that from the patient described here. Before this survey, this serotype had only been identified in 11 of 1806 (0-06%) subcultures of Listeria from food examined in Britain between 1987 and June 1989 which were serotyped at Colindale. Unfortunately, the paté eaten by this patient was no longer available for examination, but following the recent concern over this product,3 we have modified our advice to immunosuppressed patients.