

Hepatosplenomegaly in a patient returning from Spain

Introduction

Visceral leishmaniasis is a recognized cause of hepatosplenomegaly worldwide but is rare in the UK. Although it is usually thought of as a tropical disease, sporadic cases occur in southern Europe. This article reports a case of visceral leishmaniasis in a patient recently returned from Spain, highlighting the importance of considering this condition in European travellers.

Discussion

Increasing numbers of UK residents are travelling and staying abroad for prolonged periods. Imported infections need to be considered in the differential diagnosis of such febrile returned travellers. This patient was unwell for some time, and had significant hepatosplenomegaly, pancytopenia and hypergammaglobulinaemia, suggestive of visceral leishmaniasis. Hepatomegaly and/or splenomegaly may also be seen with malaria, typhoid, brucel-

losis, schistosomiasis, chronic hepatitis B, hydatid disease and leptospirosis among other infections. The key infections associated with a very large spleen are malaria, visceral leishmaniasis and schistosomiasis, which causes portal hypertension.

Visceral leishmaniasis is caused by the protozoan *Leishmania donovani* or *L. infantum* (Herwaldt, 1999). It is transmitted by female sandflies with animal reservoirs in dogs, rodents and foxes. The parasites survive within macrophages and spread to the liver, spleen and bone marrow. Diagnosis is based on demonstration of the parasite in tissue, detection of parasite DNA or serodiagnosis (Sundar and Rai, 2002). Splenic aspirates have a 90% sensitivity for visualizing parasites in active cases but also have a higher morbidity as a result of haemorrhage. Parasites may be found on bone marrow biopsy or lymph node aspirates. Polymerase chain reaction-based diagnosis from tissue or blood samples is available in the UK.

Untreated, visceral leishmaniasis has 75–95% mortality, as a result of malnutrition or secondary infection. Treatment with liposomal amphotericin is now first-line therapy (Davidson et al, 1994, 1996). Nutritional support is important.

Worldwide, there are 500 000 new cases of visceral leishmaniasis a year, with 1.5 million people infected. About 90% of cases occur in Brazil, India, Bangladesh, Nepal and Sudan (World Health Organisation, 2003). Sporadic cases of visceral leishmaniasis have been described in 16 European countries, including France, Italy, Greece, Portugal and Spain (Morillas et al, 1996). In the UK it remains rare with only one reported case between January and March 2005, and two cases in the same period in 2004 (Health Protection Agency, 2005). Despite the low incidence, this case illustrates the importance of awareness of this condition in reaching the diagnosis. **BJHM**

Case Report

A 73-year-old man presented with a 1-month history of anorexia, malaise, fevers, night sweats and weight loss. He had no past medical history of note. Since his retirement, he spent the winter months in Spain. He often travelled around Spain and recalled sleeping on the ground while camping in the Mazarron region 8 months before his illness. In the vicinity he recalled seeing dogs. On examination, he was jaundiced with hepatosplenomegaly. His liver was palpable 20 cm below the costal margin in the mid-clavicular line, and the spleen 16 cm. There was no lymphadenopathy. Blood tests showed a pancytopenia with a haemoglobin of 10.3 g/dl, white cell count of 2.86×10^9 /litre and platelets of 84×10^9 /litre. His inflammatory markers were elevated with a C-reactive protein (CRP) of 231 mg/litre. His liver function tests were deranged with a bilirubin of 73 μ mol/litre, alkaline phosphatase of 402 U/litre (reference range 40–130), alanine transaminase of 101 U/litre (reference range 0–45) and albumin of 26 g/litre.

During his admission, he spiked frequent fevers of up to 39.5°C. He was treated empirically with cefuroxime but with no improvement. Multiple sets of blood, urine and stool cultures were negative. Hepatitis B and C, Epstein–Barr virus and human immunodeficiency virus serology and blood films for malaria parasites were all negative. Serum electrophoresis showed a polyclonal increase in gammaglobulins.

A computed tomography scan of his chest and abdomen showed hepatosplenomegaly with no focal lesions and minimal lymphadenopathy. A bone marrow aspirate and trephine biopsy showed a reactive picture with increased immature myeloid cells, but no evidence of haematological malignancy. A liver biopsy showed an interface hepatitis, consistent with infection. No parasites were seen in either sample.

A sample of bone marrow sent for polymerase chain reaction analysis for *Leishmania donovani* was positive. He was referred to the local infectious diseases unit who started liposomal amphotericin 3 mg/kg for 5 days with a further dose at day 10. Three months later, he had regained 3 kg, his hepatomegaly measured 5 cm and his spleen no longer palpable. His haemoglobin was 13.7 g/dl, white cell count 11.8×10^9 /litre, platelets 616×10^9 /litre, CRP < 5 mg/litre and albumin 38 g/litre.

- Davidson RN, DiMartino L, Gradoni L et al (1994) Liposomal amphotericin B (AmBisome) in Mediterranean visceral leishmaniasis: a multicentre trial. *Q Med J* **87**(2): 75–81
- Davidson RN, DiMartino L, Gradoni L et al (1996) Short-course treatment of visceral leishmaniasis with liposomal amphotericin B (AmBisome). *Clin Infect Dis* **22**(6): 938–43
- Health Protection Agency Centre for Infections (2005) Imported infections, England and Wales: January to March 2005. *Commun Dis Rep CDR Wkly* **15**(5)
- Herwaldt BL (1999) Leishmaniasis. *Lancet* **354**: 1191–9
- Morillas F, Sanchez-Rabasco F, Ocana J et al (1996) Leishmaniasis in the focus of the Axarquía region, Malaga province, Southern Spain: A survey of the human, dog and vector. *Parasitol Res* **82**(6): 569–70
- Sundar S, Rai M (2002) Laboratory diagnosis of visceral leishmaniasis. *Clin Diag Lab Immunol* **9**(5): 951–8
- World Health Organisation (2003) Essential leishmaniasis maps. World Health Organization, Geneva

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