CASE REPORT

VISCERAL LEISHMANIASIS PRESENTING AS GENERALIZED LYMPHADENOPATHY IN NEPAL

Shatrughan P Sah[1], Gita Ashok Raj[1], OP Kalra[2], Jawaid Akhter Ansari[2]

Departments of [1]Pathology and [2]Medicine, BP Koirala Institute of Health Sciences, Dharan, Nepal

A case of leishmaniasis which presented clinically as generalized lymphadenopathy is described. Diagnosis of leishmania lymphadenitis was made by fine-needle aspiration (FNA) of lymph node, the first such report from Nepal.

Visceral leishmaniasis (kala-azar) caused by *Leishmania donovani* is an important public health problem in different parts of Nepal, including the eastern region where our hospital is located (Koirala, 1995). The common manifestations of kala-azar are fever in various forms, splenohepatomegaly, weight loss, dark coloration of skin and anemia (Karki *et al,* 1998). Lymphadenopathy in Indian kala-azar is an unsusual feature. A single case of clinical lymphadenopathy in a case of kala-azar has been reported from Nepal (Singh *et al,* 1999). However, no attempt was made to demonstrate amastigote forms of *Leishmania donovani* (LD bodies) in the lymph nodes.

We report here a case of leishmaniasis with an unusual clinical manifestation of generalized lymphadenopathy clinically simulating a lymphoma or disseminated tuberculosis. Diagnosis of leishmania lymphadenitis associated with visceral leishmaniasis was made on the basis of the presence of LD bodies in FNA and biopsy of lymph node and bone marrow aspirate.

A 12-year-old Nepali girl presented with intermittent high grade fever, anorexia and weight loss for 4 months; discomfort in the left hypochondrium and generalized lymphadenopathy for 2 months. She had been treated with various antibiotics and antimalarials with no response. She was admitted in the hospital with a clinical diagnosis of lymphoma or disseminated tuberculosis.

Examination revealed an emaciated child with abdominal distension, moderate pallor and temperature of 38.8°C. There was significant generalized lymphadenopathy varying in size from 2 - 3.5 cm in diameter; the glands were non-tender, matted, firm and mobile. The skin was dry and coarse. Spleen was greatly enlarged reaching to the umbilicus and was firm, smooth and non-tender. The liver was also enlarged four centimeters below the costal margin, firm and non-tender. Other systems were normal.

Laboratory investigations revealed the following : hemoglobin 7g/dl; total leukocyte count 3,200/mm^3 with a differential count of 60% polymorphs, 35% lymphocytes and 5% monocytes; ESR (Westergren) 41 mm/1st hour; platelet count 140,000/mm^3. Peripheral smear showed microcytic hypochromic red cells and no malarial parasite. Mantoux test was negative. Fine-needle aspiration (FNA) of left cervical lymph node revealed polymorphous population of mature lymphocytes, histiocytes, multimucleated giant cells and numerous intracellular as well as extracellular LD bodies (Fig 1). Histopathology of the same lymph node showed multiple epithelioid granulomas with giant cells loaded with LD bodies (Fig 2). Special stains for acid-fast bacilli and fungi were negative. Bone marrow aspirate also revealed multiple LD bodies.

The case was diagnosed as visceral leishmaniasis with leishmania lymphadenitis. She was treated with pentavalent antimonial, sodium stibogluconate 20 mg/kg/day deep intra-muscularly. The patient became afebrile on 4th day of treatement and lymph node, spleen and liver were found decreasing in size gradually. She was discharged from the hospital on the 8th day of treatment and was advised to continue the same treatment for a total period of 30 days and come for follow up every week. At the end of the antimonial therapy, the bone marrow aspirate did not show any LD bodies and spleen and liver had markedly decreased in size with no residual lymphadenopathy.

Indian kala-azar is usually not accompanied by lymph node enlargement, although this is a common feature in Mediterranean countries, Africa and China

Correspondence: Dr Shatrughan P Sah, Department of Pathology, BP Koirala Institite of Health Sciences, Dharan, Nepal.
Fax : 977-25-20251: E-mail : bpkihs@npl. healthnet.org

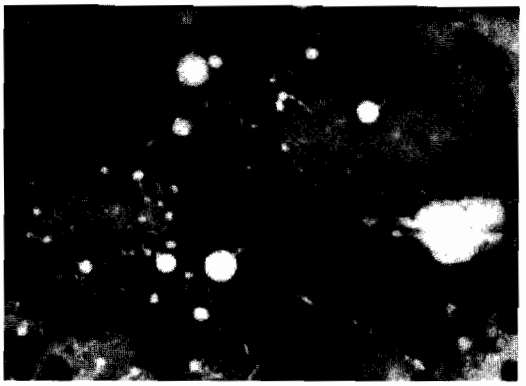

Fig 1 - FNA of lymph node showing few giant cells with numerous LD bodies (MGG stain, x 1,000).

Fig 2 - Lymph node biopsy showing a small epithelioid granuloma with multiple LD bodies (H and E stain, x 250).

(Nandy and Chowdhury, 1984). The incidence of localized leishmania lymphadenitis without other clinical manifestations of leishmaniasis has been recently increasing in the Shiraz Province of Iran (Kumar *et al,* 1987). A search of literature for lymphadenopathy in kala-azar from Nepal revealed only one case of clinical lymphadenopathy associated with kala-azar (Singh *et al,* 1999).

Although this patient came from an area endemic for kala-azar, with massive splenomegaly, the presence of generalized lymphadenopathy erroneously led to the provisional diagnosis of lymphoma or disseminated tuberculosis, clinically as also reported previously from the subcontinent (Dey *et al,* 1992). Routine FNA of the lymph node revealed LD bodies in the aspirate confirming the diagnosis of visceral leishmaniasis with leishmania lymphadenitis.

Generalized lymphadenopathy is commonly associated with tuberculosis in this region. Lymphoma, toxoplasmosis, fungal infection, leprosy and sarcoidosis are other less common causes. The presence of lymphadenopathy should not exclude the diagnosis of kala-azar. Nevertheless even in patients with proven kala-azar, lymph node enlargement may be due to other reasons such as tuberculosis because suppression of immune system due to kala-azar may increase the propensity to develop various infections. FNA can be used as routine procedure in the diagnosis of suspected leishmaniasis with lymphadenopathy particularly in areas where the disease is endemic. Presence of LD bodies is diagnostic of leishmania lymphadenitis associated with or without visceral leishmaniasis.

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