

# Kala-azar presenting as isolated cervical lymphadenopathy in an HIV-infected child

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We describe the case of a 6-year-old boy presenting only with cervical lymphadenopathy as a manifestation of kala-azar without evidence of any other visceral involvement. Involvement of lymph nodes in Indian kala-azar is quite rare with only a few case reports in published literature. The boy was known to be HIV-positive for 1 year before presentation. Immunodeficiency due to HIV infection could have resulted in unusual manifestation of kala-azar.

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Kala-azar caused by *Leishmania donovani* is a common endemic infection in eastern India which commonly presents with fever, anaemia, weight loss, darkening of skin and hepatosplenomegaly.<sup>1</sup> Involvement of lymph nodes in Indian kala-azar is uncommon. However, immunodeficiency due to various causes may modify the clinical picture of kala-azar, resulting in certain unusual manifestations.

## Case report

A 6-year-old boy was admitted to our institute for evaluation of low-grade prolonged fever for the previous 2 months and rapidly enlarging cervical lymphadenopathy for 1 month. He was known to have been HIV-positive for 1 year, but was not on any antiretroviral treatment. Both the parents were also HIV-positive.

On examination there was moderate anaemia and bilateral cervical lymphadenopathy, more on the left than right, firm in consistency without matting or changes in overlying skin. He did not have organomegaly or ascites on abdominal examination. All other systems were within normal limits. His weight was recorded as 13 kg (<3rd percentile for age and sex of CDC charts) and his height was 110 cm (around 25th percentile of CDC charts).

His CD4 count was 164/mm<sup>3</sup> at the time of presentation. Further investigations revealed haemoglobin of 9.2 g/dl, total leucocyte count of 7 100/mm<sup>3</sup>, with polymorphs 62% and lymphocytes 34%, and the

ESR 76 mm/1st hr. Routine examination of urine and chest X-ray were within normal limits. The Mantoux test was negative. Sputum was negative for acid-fast bacilli. Ultrasonography of the abdomen was normal without any evidence of organ enlargement, free fluid or abdominal lymphadenopathy. Ultrasonography of lymph nodes did not reveal any abscess formation or peri-glandular collection.


Fine-needle aspiration cytology from a lymph node revealed reactive lymphadenitis without granuloma formation. The child was put on a parenteral antibiotic in view of possible bacterial lymphadenitis but he did not improve. A lymph node biopsy revealed the presence of intra-cellular and extra-cellular amastigotes (LD bodies). Bone marrow study did not reveal LD bodies. The parents did not give consent for treatment and took the child away against medical advice.

## Discussion

Visceral leishmaniasis or kala-azar caused by *Leishmania donovani* is a well-known endemic disease in the eastern part of India. The disease is characterised by fever, anaemia, weight loss, darkening of skin and hepatosplenomegaly.<sup>1</sup> Lymphadenopathy is a common feature of Mediterranean kala-azar but is rare in Indian kala-azar except for a few case reports.<sup>2-6</sup> In our case, common causes of HIV-associated lymphadenopathy in children, e.g. tuberculosis, fungal infections, bacterial lymphadenitis and lymphomas, were considered first. But, quite unexpectedly, it turned out to be a case of isolated leishmanial lymphadenopathy.

Leishmaniasis is basically a disease of healthy infants and adults. However, it is fast emerging as an opportunistic infection in immunocompromised hosts arising from HIV infection and other causes such as lymphomas. In immunocompromised hosts, atypical presentations have been reported to be more common.<sup>7</sup> Rakhit *et al.* reported that in immunocompromised hosts, it can be asymptomatic, often with no splenomegaly, and may be present in an unusual location and run a severe and refractory course with frequent relapse.<sup>8</sup>

The majority of patients with AIDS-associated kala-azar are currently found in the Mediterranean basin of southern Europe, especially



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Spain. Montalban *et al.* described 16 patients with HIV from Spain who had visceral leishmaniasis (VL) as opportunistic infection.<sup>9</sup>

A few publications from India have thrown light on the association of HIV and kala-azar. Mathur *et al.* tested all cases of VL in their series regarding HIV status and showed that 6/104 (5.7%) were HIV-positive.<sup>10</sup> We could not find any published literature regarding kala-azar as an opportunistic infection exclusively in children with HIV infection. We report this case to highlight the fact that keeping in view the rising trend of HIV infection, kala-azar in atypical form should also be considered in addition to common opportunistic infections against the background of HIV-related immunosuppression in a vulnerable population.

**Conflicts of interest.** None.

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