Case Report

MAIDEN VISIT OF VISCERAL LEISHMANIASIS TO MALWA REGION

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ABSTRACT

Visceral Leishmaniasis is a well known public health problem in eastern parts of India. So far the cases have not been reported from Malwa plateu of Madhya Pradesh, to the best of our knowledge and available literature. We report here two cases of Visceral Leishmaniasis first time from the Malwa region. Both the cases are from the migratory population of Bihar. The diseases like Leishmaniasis which were previously restricted to endemic areas of the country are spreading to non endemic areas along with the large migratory population, which is seen with the development of the country.. The cases are reported to inform the National health authorities to take proper steps to curb the spread of the disease to non -endemic areas and to emphasize the need of vector surveys in these areas.

Key words: Visceral Leishmaniasis, Malwa

INTRODUCTION

Leishmaniasis is a protozoal disease caused by parasites of Leishmania species and transmitted to human being by the bite of female Phlebotomine sandfly. Visceral Lieshmaniasis (Kala azar) is known to occur epidemically and endemically in the well defined areas in the eastern part of the country viz. Assam, West Bengal, Bihar, Eastern part of Uttar Pradesh, foothills of Sikkim and to lesser extent in Tamilnadu and Orissa[1]. Indian Visceral Leishmaniasis is considered as non- zoonotic infection. Disease burden estimates place Leishmaniasis second in mortality and fourth in morbidity among all tropical diseases.[2] Worldwide there is an increasing number of cases and a more widespread geographical distribution with the disease being reported from previously non endemic areas.[3,4] Economic and demographic circumstances that contribute to increased prevalence include : new agro-industrial projects, large-scale migration of populations, unplanned urbanization, and man-made environmental changes.[5]

CASE 1

A 26 yr. female admitted in for evaluation of fever off and on, for last five months and nasal bleeding for one day. She has been taking treatment irregularly from different medical practitioners. She was a migrant from Bihar and was employed as a labourer in building construction work. On examination, she had pallor, oedema, skin pigmentation, mild hepatomegaly and moderate splenomegaly. Hematological investigations revealed Pancytopenia (Hb – 6.4gm%, RBC count – 2.04M/cmm, TLC- 3,000/cmm, Platelet count- 24,000/cmm.) with increased ESR (58mm. at the end of one hr.) PT and APTT were normal. Urine examination revealed mild hematuria. Tests for malaria Ag, widal, HbsAg and HIV were negative. She was subjected to bone marrow aspiration. Bone marrow smears were hypercellular with increased plasma cells and showed Leimania Donovan Bodies in macrophages. Retrospectively Aldehyde test was done, which was positive. Serum Proteins estimation showed increased Globulins with reversal of A:G ratio. Unfortunately, she succumbed to the treatment with Amphotericin B.

CASE 2

18 yr. old female, a labourer in building construction and also a migrant from Bihar, presented with complaints of high grade fever for one week. On examination she had moderate Hepatosplenomegaly. Investigations revealed Pancytopenia (Hb- 7.4gm%, RBC count – 2.2M/cmm, TLC- 1000/cmm, Platelet count- 38,000) and increased ESR (60 mm. at the end of one hr.). Tests for malaria Ag, widal, HbsAg and HIV were negative. Bone marrow aspiration was done, which showed LD bodies extracytoplasmic as well as intracytoplasmic in macrophages, with normal cellularity of the marrow. The patient left against the medical advice.

DISCUSSION

Leishmaniasis is classified as one of the "most neglected diseases", based on the limited resources invested in diagnosis, treatment, and control, and its strong association with poverty[6]. It is presumed so far that the sandfly vector does not exist in Malwa region. However a sandfly vector (Phlebotomus argentipes) has been reported from nearby region of khandwa[7] and the vector survey of Malwa region is not available as far our knowledge and search for the available medical literature is concerned. The migratory population has already brought the disease to the region and possibility of presence of vector in this region cannot be ruled out. One interesting case from the local population was also presented in the clinical meeting of Indian Association of Pathologists and Microbiologists, Indore city chapter, held in October '2010. The person had never visited any endemic area of Leishmaniasis. There is possibility of detecting many more cases of Visceral Leishmaniasis which are possibly misdiagnosed because of lack of facilities of investigating them and the knowledge about the presentation of the disease. These cases are mostly treated as Malaria, Typhoid or Tuberculosis and are only detected when they come to tertiary care centres. This emphasizes the need of vector survey in Malwa region and proper steps to curb the spread of the diseases to the local population. This case report is unique and significant because possible spread of Visceral Leishmaniasis in this region may affect the health of local inhabitants as well as tourism and economy of the state.

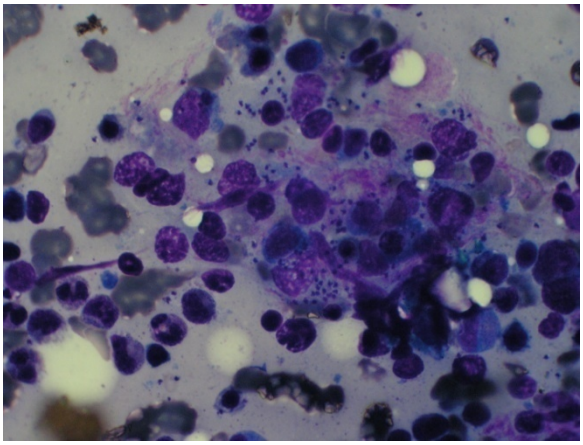

Fig. 1 – Bone marrow aspirate showing extracytoplasmic as well as intracytoplasmic Leishmania Donovan bodies in the macrophages (Geimsa, 100 X)

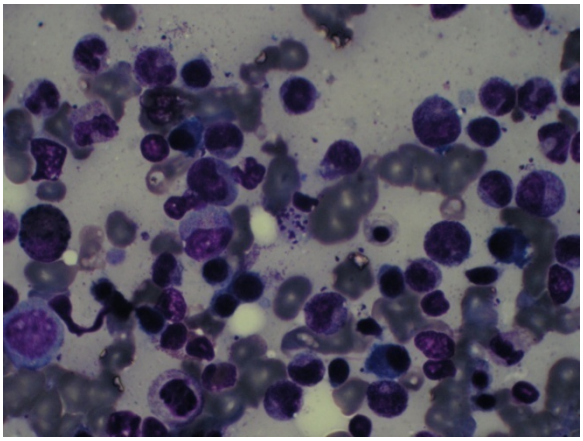

Fig. 2 – Bone marrow cells with one macrophage in the centre showing intracytoplasmic Leishmania Donovan Bodies (Geimsa, 100 X)

REFERENCES

1. Marinkelle CJ. The control of Leishmaniases. Bull. World Health Organ.1980; 58(6) : 807-818.
2. Mathers CD, Ezzati M, Lopez AD. Measuring the burden of neglected tropical diseases: the global burden of disease framework. PLoS Negl Trop Dis. 2007; 1: e114. doi: 10.1371/journal.pntd.0000114.
3. Kumar Kaushal, Mittal Veena. Two cases of kala-azar in Haryana with no evidence of local transmission. J commun Dis. 2008; 40 (1) : 87-88.
4. Dey Ayan, Sharma Umakant, Singh Sarman. First case of indigenous Visceral Leishmaniasis from Central India. Am J Trop Med Hyg 2007; 77(1) : 95-98.
5. Eighth Report on World Health situation. Implementation of the Global strategy for Health for all by the year 2000. Second evaluation vol. 1 Global review 1993.
6. Alvar J, Yactayo S, Bern C. Leishmaniasis and poverty. Trends Parasitol. 2006; 22: 552-557.
7. Kaul S.N. Phebotomine sandflies (Diptera psychodidae) from khandwa and Hoshangabad districts of Madhya Pradesh, India. J commun dis. 1991; 23 : 257-262.