

CASE REPORT

VISCERAL LEISHMANIASIS: ADULT POPULATION OF ABBOTTABAD AT RISK NOW

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Leishmaniasis is a disease complex caused by the parasite of genus *Leishmania*. Visceral Leishmaniasis is caused by *Leishmania donovani* transmitted to human by sand fly. Some wild animals and human reservoir is the major reservoir in most of the cases. The disease is prevalent in different parts of the world including India, Nepal, Bangladesh, Sudan and Brazil. It has also been reported from Northern half of Pakistan. In Hazara Division, it has been reported from Galiat, Battagram, Kaladhaka, Kohistan, Balakot, Kaghan and adjoining areas of Azad Jammu & Kashmir. A focus of visceral Leishmaniasis was detected in villages located about 15 Km from Abbottabad city in year 2000. Sporadic cases were reported from the suburbs of Abbottabad but not from Abbottabad city. All these cases and cases from the other parts of Pakistan were children <12 years of age and the disease was not seen in adults except only one child, 11 year old. We report the 1st case from this area which is 16 years old girl.

Keywords: Leishmaniasis, Sand fly, LD bodies

INTRODUCTION

Leishmaniasis is a complex of many disorder caused by the parasite of Genus *Leishmania* which has different species. Visceral Leishmaniasis is one of them. It is caused by '*Leishmania donovani*' which is transmitted to human by the bite of sand fly, the vector. Some wild animals act as reservoir in a few countries. Human reservoir is the major reservoir in most of the cases. The disease is prevalent in different parts of the world , mainly India, Nepal, Bangladesh, Sudan and Brazil.¹ It is has also been reported from northern half of Pakistan.²⁻⁸ In Hazara Division , it has been reported in Galiat, Battagram, Kaladhaka, Kohistan, Balakot, Kaghan and adjoining areas of Azad Jammu & Kashmir.²⁻⁸

A focus of visceral Leishmaniasis was detected in a village named 'Bagh Bandi' and adjoining villages located about 15 Km from Abbottabad city, in year 2000. Twenty-five cases were diagnosed from this single small village of about 3,000 people.² Sporadic cases were reported from the adjoining villages and suburbs of Abbottabad but none from Abbottabad city. All these cases which were reported previously, were children <12 years of age and the disease was not seen in adults, except only one child who was 11 year old. Majority of the cases from the other parts of Pakistan were also reported in children <12 years.²⁻⁸

CASE REPORT

We report this 1st case which is a 16 years old girl, belonging to Kehal, an area in Abbottabad city, and has been unwell for the last 6 months with fever, poor health, progressive pallor, repeated

gastrointestinal and respiratory tract infections for the same duration. Her mother died 6 years ago, due to breast cancer. She does not have any other significant family history.

She has been under treatment by various doctors during this period. This time she presented to Paediatric Department, Ayub Teaching Hospital, Abbottabad. At presentation, she was found having fever, pallor, wasting and distension abdomen. Physical examination revealed temperature 101 °F, pallor+, wasting+, skin pigmentation+, splenomegaly 12 Cm below left costal margin and hepatomegaly 6 Cm below right costal margin. No lymphadenopathy was found clinically, however, para-aortic lymphadenopathy was found on ultrasound examination of abdomen.

Her laboratory investigations revealed haemoglobin 11.1 g/dl (after transfusion of 2 units of blood), white blood cells count 1,200/ l, total red blood cells count 2.3 million/ l, mean corpuscular volume 75 fl, mean corpuscular haemoglobin 25 pg, mean corpuscular haemoglobin concentration 31 g% and platelet count of 65,000/ l. Her Liver and renal profile was within normal limits.

Smear examination revealed microcytosis++, hypochromia++ and rouleaux++. Her erythrocyte sedimentation rate was 110 mm at the end of 1st hour. Initial bone marrow examination done privately revealed dry tap. The patient was referred to the Department of Pathology, Ayub Medical College, Abbottabad for repeat bone marrow aspiration and trephine biopsy which revealed *Leishmania donovani* bodies with parasite index of 55 (Figure-1). Final diagnosis of visceral leishmaniasis was made.

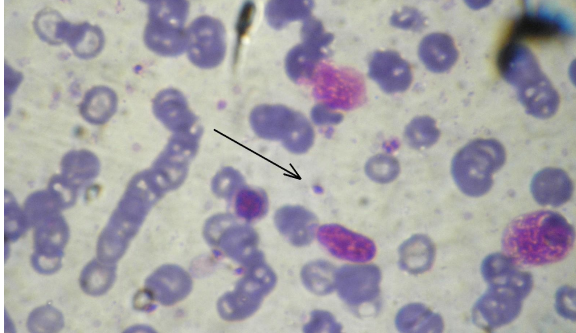


Figure-1: Bone marrow aspirate showing amastigote forms of Leishmania

DISCUSSION

Although visceral Leishmaniasis is prevalent in Hazara in paediatric age group, no case has been reported previously with age >12 years from this area. A thorough literature research revealed only one adult who also had HIV.⁹ The present patient will be the 1st case of visceral Leishmaniasis ever reported from Hazara in this age group.

It is an indication that the disease is now proceeding to involve relatively older age group as compared to previously. It is spreading to the city of Abbottabad. In a previous study², preventive measures were suggested in order to protect the population of Abbottabad city from this deadly disease. To our knowledge it has not been taken seriously and now the disease is becoming a major threat to the health of children as well as adults of Abbottabad. If proper preventive measures are ignored this time again, we feel that a time will come when this problem will grow further and may become out of control. The situation may become

even worse specially when there are reports of increasing resistance of the parasite to the commonly used drugs.¹⁰

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