

## AIDS Presenting as Unresolved Pneumonia in a 9 Year Old Boy

Sir,

Documented modes of transmission in childhood AIDS include transmission through blood or blood product transfusions and vertical transmission from mother to infant. In children who have been sexually abused, AIDS could be a possibility. The following case of unresolved pneumonia highlights the problem of childhood AIDS with no apparent risk of HIV infection.

This 9 year old boy presented with high-grade intermittent fever associated with chills and rigors for 2 weeks prior to admission. He also had mild non-productive cough. His mother noticed that he had loss of appetite and weight for the past 2 months. There was no past history of hospitalisation, nor had he received any blood transfusion. His father was treated for purulent urethral discharge (sexually transmitted disease) 17 years ago, prior to his marriage. He was not a drug abuser. The mother received blood transfusion 1 year ago, after a spontaneous abortion.

On admission, he was thin and wasted, with a weight of 20 kg. The level of consciousness was good, with no neurological deficit. He was febrile and tachypnoeic with fine crepitations heard over the right lung base. The liver was palpable 1 cm below the costal margin and small cervical and axillary nodes were present. Oral thrush was absent. The anal region was not inspected.

Initial investigations included Hb 10.8 gdl<sup>-1</sup>, TW 17000 mm<sup>-3</sup> (N83% L17%). Chest X-ray on admission showed mild haziness in both lung bases (Fig 1). He was treated for pneumonia with ampicillin and gentamicin. He continued to have high spiking fever. Repeated blood cultures showed no growth and investigations for tuberculosis, typhoid and rickettsial diseases were negative. No consent was given for bone marrow examination.

Numerous antibiotics were given including cloxacillin and cephalosporins. Repeat CXR on 12th day of admission (Fig 2) showed persistent bilateral lower lobe pneumonia. His condition rapidly deteriorated from 13th day of admission. He was in severe respiratory distress, with diminished air entry over both lungs. The liver was enlarged 5 cm below the subcostal margin and there was prominent generalised lymphadenopathy. He was treated for septicaemia but developed renal impairment with pulmonary oedema and liver congestion. Chest X-ray on the 14th day of admission (Fig 3) showed extensive infiltration over both lung fields with sparing of both apices. He had poor oxygen saturation in spite of ventilation and died 8 hours later.

Blood taken from patient subsequently came back as positive for HIV infection by both ELISA and Western Blot methods. Serum ELISA for HIV infection of both parents were negative.

Retrospectively, this child presented with a persistent bacterial pneumonia. The rapid deterioration prior to his death could be due to an opportunistic lung infection such as *Pneumocystis carinii* pneumonia. The other clinical manifestations of AIDS in this child were wasting, hepatomegaly, and generalised lymphadenopathy. The mode of transmission of AIDS to this child is still unclear. It should be noted that about 3% of the total 1985 paediatric AIDS cases up to the year 1989 in the United States<sup>1</sup> had no obvious risk factor for HIV infection in spite of intensive investigations.

## AIDS PRESENTING AS UNRESOLVED PNEUMONIA

In summary, childhood AIDS should be considered as one of the differential diagnosis in the work-up of a wasted child presenting with prolonged and persistent pneumonia. A high index of suspicion is necessary even though the mode of transmission of childhood AIDS may not be easily determined.

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### References

1. Caldwell MB, Rogers MF. Epidemiology of Paediatric HIV infection. *Paeds Clinic N America* Feb1991;38(1) : 1-16.