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Case Report

Pulmonary Tuberculosis Presenting As Hyperactive Airway Disease

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ABSTRACT

Tuberculosis continues to be an important cause of morbidity and mortality for children worldwide and most of the tuberculosis cases occur in developing countries. Pulmonary Tuberculosis can mimic like bronchial asthma, pneumonia and lung tumor. Hence detection of Tuberculosis at the earliest is important to start administration of anti-tuberculosis chemotherapy, to prevent the spread of disease and to prevent complications. We are reporting an interesting case of a young male with pulmonary tuberculosis who presented with features of Bronchial asthma and was diagnosed to have pulmonary tuberculosis.

Keywords: Pulmonary Tuberculosis, Asthma, Wheezing.

INTRODUCTION

Though India is the second-most populous country in the world, India has more new TB cases annually than any other country. In 2011, out of the estimated global annual incidence of 9 million TB cases, 2.3 million were estimated to have occurred in India. [(1)] Estimating the burden of TB in children (aged less than 15) is difficult; estimates are included in the report for the first time. There were an estimated 0.5 million cases and 64 000 deaths among children in 2011. [(2)] Control of tuberculosis in children often escapes attention because of the paucibacillary nature of the illness. However, they contribute much of the morbidity, mortality and future reservoir of the disease which reiterates the importance of risk-factor based screening for latent infection and appropriate treatment. [(3)]

CASE REPORT

A 17 year-old male child was brought with complaints of Cough, Fever and Wheezing since past 1 year. Cough was non productive in nature and more during night times. Fever was of mild degree and intermittent in nature. For the above complaints the child was shown previously to local doctor where he was labelled as a case of hyperactive airway disease and treated with bronchodilators with some relief. As cough and wheezing continued on and off the child was brought here. There was no h/o contact with tuberculosis.

At admission there was no documented fever but minimal cough. Bilateral ronchi was present. Rest of the examination was normal. Hematological investigations revealed hemoglobin of 12.2 gm/dL and total leukocyte count of

12900/cm3 with differential count of N60, L28, E10 and M2, absolute eosinophil count: 428cells/cumm and erythrocyte sedimentation rate of 24 mm/h,. The chest X-ray showed diffuse bilateral non homogenous opacities more so in left apical region. Lower Respiratory Tract Infection was suspected and was started on IV antibiotics but patient did not respond to the treatment. Possibility of Pulmonary Tuberculosis was suspected and Sputum for AFB and mantoux test was done. The mantoux test reading was 12mm and sputum for AFB was positive. HIV serology was negative. The child was started on ATT category 1 (i.e. Rifampicin, Isoniazid, Pyrazinamide, Ethambutol for 4mts followed by Rifampicin and Isoniazid for 2mts) and showed clinical improvement within 1week and is on follow up.

Endobronchial Tuberculosis presenting as Bronchial asthma is common but Pulmonary Tuberculosis presenting as Bronchial asthma is rare and should always be kept a possibility when there is unusual presentation in developing countries like India

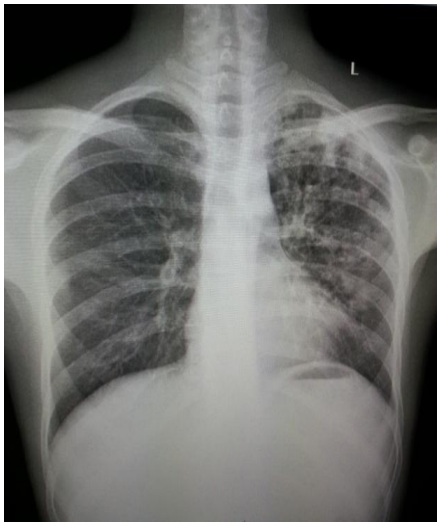

Fig 1: chest X Ray showing non homogenous opacities bilaterally.

DISCUSSION

In 2013, 5.7 million newly diagnosed cases were notified to national TB programmes. Therefore about 3 million people with TB were "missed", either because they were not diagnosed or because they were diagnosed but not reported. [(2)] Despite of being very well established in adults, TB diagnosis and treatment in children are sometime difficult to achieve. In general, TB is diagnosed by the identification of Mycobacterium Tuberculosis in about 30 % to 40 % of cases. [(4)] However, in children the pauci-bacilar form is more common and Mycobacteria isolation and identification are even less frequent. Therefore, TB diagnosis in children is done mainly by a positive history of contact with a baciliferous adult, by a positive Mantoux tuberculin skin test (MTST) or by an abnormal chest X Ray. [(5,6)] A high index of suspicion is the key to its successful diagnosis and treatment especially in countries with a high disease burden. [(7)]

CONCLUSION

Active tuberculosis presenting as childhood wheezing is not uncommon. Children with wheeze presenting for first time with unusual age of presentation should be investigated thoroughly. There are no specific clinical pointers towards likelihood of TB-induced wheeze in children and only a high index of suspicion with relevant tests and its treatment, would aid in early and better control of wheeze in these children.

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