The most common form of the infectious disease tuberculosis (TB) is pulmonary, but it also presents as extra-pulmonary tuberculous disease. In Mexico, extra-pulmonary TB is about 17.2% of all TB cases; in children aged 1-4 years, it represents 3% of TB cases. It is well documented that Mycobacterium bovis (BCG) vaccination generally induces high levels of protection against pulmonary and extra-pulmonary infection caused by Mycobacterium tuberculosis in animals. However, studies have shown that the context of tuberculous patients are a high-risk group for developing tuberculosis, particularly within the first 3 years.

Introduction

Tuberculosis (TB) is an infectious disease affecting one third of the world’s population. In 2011, there were an estimated 8.7 million new cases of TB (13% co-infected with HIV) and 1.4 million people died from TB. There were 2.6 million cases of sputum smear-positive pulmonary TB, 2.0 million cases of sputum smear-negative pulmonary TB (including cases for which smear status was unknown), and 0.6 million cases of extra-pulmonary TB[1].

BCG vaccine, the only vaccine currently available, generally induces high levels of protection against pulmonary and severe TB in children. Recent studies have shown that BCG vaccine reduces TH1, TH2 and T cell immune responses, which is associated with protection [2, 3]. Children vaccinated with BCG, who were diagnosed with TB, had 90% lower risk of developing severe TB compared with BCG unvaccinated children [4].

We report the case of a 3-year-old Mexican boy initially diagnosed with a right axillary tuberculous adenitis by non-specific pathogen and discharged from children's hospital treatment. After 3 days he returned with fever, night sweats, and regional lymphadenopathy. A submandibular lymph node was excised by surgical debriement. At 4 days post-operation, the presence of Mycobacterium tuberculosis was confirmed by microbiological exam from biopsy. After this result, therapy was initiated with DOTRAX (isoniazid 75mg, pyrazinamide 40mg, rifampicin 150mg, and ethambutol 300mg) every day for 9 months and the patient improved. This particular case demonstrates the importance of an early and enhanced control of TB patients in order to reduce TB transmission.

Discussion

TB is one of the most prevalent infectious diseases in adults and there are 8.0 million new cases and 1.4 million deaths from TB annually. TB is divided into two categories according to the site of infection: TB involving only the lung is called pulmonary TB, while TB of organs other than the lung is called extrapulmonary TB. DOTRAX is the most common treatment regimen for tuberculosis in children. However, studies have shown that the context of tuberculous patients are a high-risk group for developing tuberculosis, particularly within the first 3 years.