

TITLE: Difficulties in the diagnosis of mycobacteriosis in early age children without immunodeficency

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ABSTRACT (upto 300 words)

Introduction. Mycobacteriosis is an infectious disease caused by nontuberculous mycobacteria (NTM) with the development of granulomatous inflammation in the affected organs and tissues. The disease commonly develops in individuals with local or general immunity defects. Since 1990 have observed persistent growth of mycobacteriosis incidence worldwide. Clinical symptoms and radiological changes mycobacteriosis of the lungs or intrathoracic lymph nodes are identical to those in TB. The histological study of the affected organs and tissues shows granulomatous changes of different extents, which might be referred to lesion variants caused by M. tuberculosis. Verification of the disease can only be done by the microbiology method mycobacteria detection in diagnostic samples.

Objective. To show difficulties in the diagnosis of mycobacteriosis in a child without immunodeficiency on a clinical example.

Methods and materials. A clinical observation of intrathoracic lymph node mycobacteriosis under the guise of TB in a two-year-old child is represented.

Results. The disease manifestation was observed in the form of relapsing pneumonia at the age of 5 months. After treatment failure with antibiotics the diagnosis of TB was established. The child received TB treatment for 14 months with insignificant positive X-ray dynamics and preserved endoscopic signs of broncho-nodular

fistulas. The child underwent surgery. The histologic study detected granulomatous inflammation. *M. avium* DNA was detected in the resection samples by PCR. After surgery the child received treatment for 9 months based on drug susceptibility test results. The immunogenetic study was performed: genes associated with the development of primary immunodeficiency were not found.

Conclusion. Mycobacterial infection in a two-yearold child without immune system disorders imitated the pattern of intrathoracic lymph node TB complicated by broncho-nodular fistulas, which caused delayed diagnosis of mycobacteriosis. The disease was verified by the molecular genetic method, which detected *M. avium* DNA in the resection samples.

BIOGRAPHY (upto 200 words)

Marina F. Gubkina – Doctor of Medical Sciences, Principal Researcher, Central TB Research Institute, Moscow. Professor of Phthisiology Department, N.I. Pirogov Russian National Research Medical University, Moscow. Research interests – diagnosis and chemotherapy of childhood TB. More than 150 scientific publications, 8 patents for invention, Hirsch index – 10.



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