

12. CHILDREN TUBERCULOSIS IN THE PRESENCE OF PRIMARY IMMUNODEFICIENCY CRITERIA

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Introduction. Children tuberculosis (TB) is of primary genesis - represents the response of the macroorganism to the first contact with the source of infection. Latent TB Infection (ITBL) develops frequently in children, and under certain conditions progresses to TB disease, the decisive factor being the presence of primary immunodeficiency (PID). Genetic correlations of TB susceptibility derive from the functionality of TB protection mechanisms: innate and acquired immune response. The identification of children at high risk of developing TB is essential and can be achieved by assessing the presence of criteria for PID.

Aim of study. Studying the clinical evolution, diagnostic and treatment characteristics of TB in children with PID criteria.

Methods and materials. 40 new cases of TB in children were analysed between January 2020 and December 2021, selected based on a result of the IDR score ≥ 6 (Immunodeficiency disease related score), considered as a significant threshold value for the suspicion of a PID condition.

Results. The average age of the analyzed cases was 6.9 years. The TB screening method was active in 20 (50.0%) cases, passive – 17 (42.5%), active with suggestive symptoms - 3 (7.5%). Symptomatic cases - 20 (50.0%) were manifested by the following TB "masks": pneumonia - 15 (75.0%) bronchitis - 2 (10.0%), neurological - 2 (10.0%), influenza-like - 1 (5.0%). Contact with other TB patients was in 30 (75.0%) cases. The frequency of the PID criteria based on the IDR score were: lymphadenopathy in 31 (77,5%) cases, neutropenia - 26 (65,0%), bacterial pneumonia - 24 (60,0%), acute bronchitis - 22 (55,0%), failure to thrive - 20 (50,0%), lymphopenia - 5 (12,5%), acute otitis media -4 (10,0%), malabsorption - 3 (7,5%), septicemia - 2 (5,0%), osteomyelitis - 2 (5,0%), splenomegaly -2 (5,0%), chronic bronchitis - 2 (5,0%), fever of unknown origin - 2 (5,0%), lymphadenitis - 2 (5,0%), abnormal weight loss - 2 (5,0%), other abcecess - 1 (2,5%), giardiasis- 1 (2,5%), gastroenteritis - 1 (2,5%). BCG immunisation was recorded in 39 (97.5%) cases. Identified clinical forms: TB of intrathoracic lymph nodes – 20 (50.0%) cases, Infiltrative pulmonary TB - 8 (20.0%), Primary TB complex - 6 (15.0%), TB pleurisy - 2 (5.0%), Bone TB - 2 (5.0%), TB of peripheral lymph nodes - 1 (2.5%), Generalised TB (with meningitis) - 1 (2.5%). In all the studied cases, the TB process was in evolution phase. Complications had 5 (12.5%) cases, manifested by: pleurisy - 2 (40.0%), atelectasis - 2 (40.0%), respiratory failure - 1 (20.0%). Microbiological confirmation - 12 (30%) cases, and histologically - 3 (7.5%). The result of the Mantoux test was negative in 25 (62.5%) cases. Treatment for sensitive TB received 29 (72.5%) of cases, and for resistant TB - 11 (27.5%). The treatment results were: completed in 28 (70.0%) cases and cured in 12 (30.0%).

Conclusion. Tuberculosis in children in the presence of PID criteria is diagnosed more frequently at an early age, with the development of pulmonary forms and complications.