

LONG-TERM OBSERVATIONS OF ANTI-PERTUSSIS TOXIN ANTIBODIES IN CHILDREN AND ADOLESCENTS INFECTED WITH HIV.

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Introduction: Due to impaired immunity children with HIV may not respond to pertussis vaccination properly, so they are at high risk of this severe disease. Objective: To evaluate a concentration of anti-pertussis toxin (PT) IgG antibodies and anti-fibrillar hemagglutinin (FH) IgA antibodies as markers of prior vaccination and natural infection in children infected with HIV. Material and methods: In 19 patients from Department of Pediatric Infectious Diseases in Wrocław anti-PT IgG and FH-IgA antibodies were evaluated repeatedly. All the children were given at least 4 doses of pertussis vaccine, they were receiving antiretroviral therapy. Results: Positive results of anti-PT IgG antibodies were detected in 9/19 patients (47.4%), while titers above the cut-off of > 50 U/ml were found in 6 children. In all patients specific IgG titers decreased over time. In one child vaccinated 6x with DTaP, positive FH-IgA and increased concentration of anti-PT unrelated to vaccination were detected, which was interpreted as the result of natural infection. Any child had been observed for clinical symptoms of pertussis. Conclusions: Pediatric patients with HIV require booster doses of pertussis vaccine. Evaluation of anti-PT IgG antibodies does not reflect the immunity status for pertussis in this group.