

**P1244**

**Poster Session V**

**Immunology, vaccination and host defences**

**EFFECT OF INFLUENZA VACCINATION ON THE IMMUNE CELLS IN PATIENTS WITH ALLERGIC**

**V. Bulgakova**<sup>1</sup>, I. Balabolkin<sup>1</sup>, A. Baranov<sup>1</sup>, I. Smirnov<sup>1</sup>, I. Zubkova<sup>2</sup>, E. Korolkova<sup>2</sup>, I. Larkova<sup>1</sup>, L. Ksenzova<sup>1</sup>, E. Antonova<sup>1</sup>, K. Efendieva<sup>3</sup>

<sup>1</sup>Institute of Pediatrics, Scientific Centre of Children Health Russian Academy of Medical Sciences, Moscow, Russia ; <sup>2</sup>Department of Clinical Immunology and Virology, Scientific Centre of Children Health Russian Academy of Medical Sciences, Moscow, Russia ; <sup>3</sup>Institute of Preventive Pediatrics and Rehabilitation Treatment, Scientific Centre of Children Health Russian Academy of Medical Sciences, Moscow, Russia

**Objectives.** To determine the impact of vaccination against influenza on the processes of activation of apoptosis and immune cells in children with atopic bronchial asthma (BA).

**Methods.** Studied immune status of 39 children with moderate persistent BA in children from 7 to 14 years, which annually for 3 years were vaccinated influenza subunit vaccine. Compared the levels of serum markers of activation of apoptosis and immune cells before and 1 month after vaccination.

**Results.** After the vaccination there was a trend to increase of level of IFN $\gamma$ , IL12. Also demonstrated increased in 1.3 times sCD25 ( $p < 0.05$ ), in 1.6 - IL8 ( $p < 0.001$ ), reduction in 1.5 - IL4 ( $p < 0.001$ ), in 1,3 - TNF $\alpha$  ( $p < 0.05$ ). In vaccinated children was revealed a tendency to a decrease compared to the initial levels of sCD4+ ( $p < 0.001$ ), as well as a tendency to increase sCD25 and the reduction of sCD30, sCD95 ( $p < 0.05$ ), with the all of the listed indicators were significantly rejected from the reference levels. Reliable dynamics of the content of eotaxin, soluble ligands markers of apoptosis sFASL, TRAIL (Apo-2L), the enzyme caspase-1/ICE and protein Annexin V have been identified.

**Conclusion.** The data show a pronounced inflammatory process in children with atopic BA. At the same time, the observed dynamics of the studied indicators can be interpreted as evidence of an absence of negative impact of vaccination on the various links of the immune response in children with atopic BA, including on the processes of activation and apoptosis.