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**Title:** Aspects of the placenta status in women with asthma

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**Body:** Bronchial asthma (BA) is the most common lung disease in pregnant women. Poor control of BA increases the likelihood of low birth weight, neurological disorders, asphyxia, congenital malformations. Placenta is a natural protective barrier for the unborn child and studying its status in patients with allergic diseases is particularly interesting. The purpose of the study: to assess immunomorphology and immunohistochemistry of placenta in women with BA. Materials and methods: we analyzed the pregnancy and delivery of 55 women: 27 with mild, 17 with moderate and 11 with severe BA. The control group consisted of 20 women with physiological pregnancy. Biopsies of the central and peripheral parts of placenta were treated with special antibodies against cytokines IL4, IL6, fibrinogen, complement fractions C3 and monoclonal antibodies against IgA, IgM, IgG for immunomorphological analysis; and monoclonal antibodies to CD31, CD83 for immunohistochemistry. Our results that in cases of mild to moderate BA immune deposits were detected in average 39,7% and 70%; IL4 – in 68,7% and 76.4%; IL6 – in 34% and 51.6% cases, respectively. The largest number of pathogenic immune complex (PIC), fibrinogen, IgA and IgG fixed in the placenta were detected in cases of severe BA (100%). IL4, IL6 were detected in 92,4% and 50,1% patients with severe BA, respectively. Immunohistochemical study revealed high expression of CD31 (S=2,05) and CD83 (S=4,87) cells. PIC was not detected in control group, Ig4, Ig6 were detected in individual observations without fixing complement fraction C3. Conclusion. Placental insufficiency adversely affects the course of pregnancy, delivery, and status of the fetus and newborn and can be a possible predictor of BA symptoms in children.