

THE INFLUENCE OF BRONCHIAL ASTHMA ON MENSTRUAL CYCLE OF GIRLS: PRELIMINARY STUDY

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Introduction: Bronchial asthma is the most frequent inflammatory chronic disease of the respiratory system. It is estimated that it concerns about 5-10% of children and adolescent population.

Aim: The aim of this study was to evaluate the effect of bronchial asthma and its severity on menstrual cycle.

Material and methods: 111 girls aged 8-17 years from the Upper Silesia Region were qualified to the study as the research population. The study group consisted of 58 girls treated for bronchial asthma; the control group - 53 healthy girls. In the research part, socio-demographic factors, somatic development, birth parameters, severity of bronchial asthma, age of menarche, and menstrual cycle parameters were analyzed. Statistica 6.0 software was used for the statistical analysis. The mean differences between parameters were tested using U Mann-Whitney, Fisher tests, and logistic regression models.

Results: The mean age of the research population was 13.17 ± 2.74 years. The mean duration of bronchial asthma in studied girls was 8.84 ± 3.17 years. Asthmatic girls started to menstruate earlier (10.84 ± 1.93 years) than healthy girls (12.24 ± 1.16 years) ($P=0.0004$). The severity of bronchial asthma ($P=0.0096$) correlated with the age of menarche. Irregular menstrual cycles were found in 50% of asthmatic girls and 27.78% of the control group ($P=0.03$). Algomenorrhea was observed in 68% of girls with asthma and in 80.56% of healthy ones ($P=0.013$). The prevalence of algomenorrhea correlated with asthma severity stage ($P=0.00022$) and lack of clinical control ($P<0.000047$).

Conclusions: Menarche appears more than one year earlier in girls with bronchial asthma compared with controls and the mean age of menarche depends on asthma severity. Among girls treated for asthma irregular menstrual cycles are diagnosed twice more frequently but algomenorrhea is rarer.