ENVIRONMENTAL FACTORS INCREASING THE RISK OF BRONCHIAL OBSTRUCTION – SELECTED RESULTS OF THE POLISH SPIROMETRY DAY 2013

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Polish Spirometry Day (PSD) is an initiative aimed at increasing awareness of the causes (including air quality), symptoms, course and effects that accompany respiratory diseases, especially asthma and chronic obstructive pulmonary disease (COPD). In 2013 the second edition of PSD was held. It gathered nearly 180 medical centers and other institution. The final analysis encompassed in total 1187 results of people from 26 different locations (including rural areas, smaller and larger cities and agglomerations). Each person fulfilled a questionnaire regarding personal information, respiratory diseases, symptoms of diseases, lifestyle and place of residence. Subsequently a pulmonary function test was completed.

In the whole group 234 cases of bronchial constriction (obstruction) were diagnosed – it was 19.71% of all examined persons. 63.61% of examined people completed their spirometry test for the first time in their life. In 17.8% of this group obstruction was observed – those 134 people were not aware of their disease.

The lowest values of FEV_1 and FEV_1/FVC were observed in small and medium cities (100-250 K Inhabitants). The highest percentage of people with obstruction were also observed in these locations – 22.77%.

The differences in obstruction percentage were also observed depending on the distance of the place of residence from the main road. Significant decrease of both crucial spirometric parameters was observed among people living in cities >100 K inhabitants within a distance closer than 50 m from the road. In general the highest ratios of spirometry parameters were observed among inhabitants living more than 150 m from the main road.