

Influence of air pollution on the frequency of pathology of upper respiratory tract and characteristics of its progress

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World Health Organization (WHO) experts study air pollution levels in economically developed and less developed countries and cities every year. In the cities with polluted air, overall mortality indicator exceeds the indicator of a little more fresh air cities, by 15-20%. Air pollution is a critical risk factor for diseases that lead to death in case of 25% of cardiovascular diseases, 29% of respiratory infections and in the event of lung diseases the indicator reaches to 43%. According to findings of 2016, 4.2 million people died of air pollution, from which death of 3.8 million people were caused by domestic air pollution. Unfortunately, there is a tendency of air pollution increase. Due to the WHO's 2017 announcement, air pollution, causes the death of 7 million people annually. Atmospheric air mostly gets dirty with carbon dioxide, hydrocarbons, nitrogen oxides, sulfur dioxide, soot, benzo(a)pyrene, suspended particulate matters (PM10, PM2,5), etc. Pollutants, which appear in the atmosphere together with the exhaust gas, cause a real threat to the health of the population and are directly related to the deterioration of the health of the population. Its impact on children is highly important. They are especially vulnerable to environmental risks, particularly air pollution due to several factors. The child's body is growing, in consideration of the proportion of body mass and height, he/she breathes more air, consumes more food and water than adults; Consequently, in children, compared to adults, the burden and mortality associated with air pollution are higher. There is a state monitoring on air quality in Georgia. Today 6 Georgian cities (Tbilisi, Kutaisi, Batumi, Zestaponi, Rustavi and Chiatura) are monitored for air pollution, according to the research data of the National Center for Disease Control and Public Health, the mortality in Georgia caused by air pollution during 2008-2012 is divided into: mortality by the reason of atmospheric air pollution – 108000 accidents, air pollution inside the buildings resulted by food preparation and solid fuel consumption for heating – 36000 cases of death, as a result of secondary impact of tobacco smoke - 21,000 deaths. There is totally registered 605179 accidents (prevalence rate - 13476.3), including 521947 new cases (incidence - 11622.8). 52% of new accidents were on children under the age of 15. Compared to 2011, the incidence rate of respiratory diseases in children for 2012 increased and it was 35900.5. According to the research conducted by Yale University, Georgia takes 111th place between 180 countries by air pollution levels. The measures reducing the impact of polluted air on human health shall be based on normative-legislative regulations in the field of atmospheric air protection. The goal of our research is to analyze the impact of air pollution on the frequency of detection of Upper Respiratory Tracts infections and the characteristics of the disease progression in children, in these 6 cities of high pollution level. Research method is retrospective. In the research group will enter patients from "Green City" Telavi. The period 2006- 2016 will be studied. The research group will include pregnant women, children from such pregnancy from 0 to 5 years. According to the results of the research we will have the ability to determine the correlation connection of air pollution level with the respiratory system – upper respiratory system disease progression and characteristics.

Key Words: *air pollution, pathology of upper respiratory tract.*