INVESTIGATION OF THE RISK FACTORS FOR PULMONARY TUBERCULOSIS: CASE CONTROL STUDY IN THE ABSHERON RAYON OF AZERBAIJAN REPUBLIC

Samaya Ismayilova, *Public Health and Reforms Center, MoH Azerbaijan*

Alexander Pasechnikov, *Abt Associates Inc., Azerbaijan*

Background. With the re-emergence of TB, affecting mainly developing countries, investigation of the risk factors is important for identification of high risk groups in a community to adjust and adapt TB control policies. The study was carried out to assess the contribution of host related, socio-economic and environmental factors in the development transmission of TB in Azerbaijan.

Objective. The objective of the study is to provide information that will help to identify high-risk groups and will be useful for the improvement of TB control program in Azerbaijan.

Methods. A population-based case-control study was conducted in the Absheron rayon of Azerbaijan republic from May 2010 till October 2010. Cases were all TB patients >15 newly registered at the Absheron rayon policlinic between 1 January, 2008 and December 31, 2009 and recruited to a WHO DOTS program. Three controls were recruited for each case.

Results. The univariate analysis by logistic regression of host related factors based on the comparison of 178 cases/household controls and 222 cases/community controls showed that male sex is a significant risk factor for TB. Male sex also remained as a significant risk factor in multivariable analysis of the host-related factors in these comparison groups. The univariate analysis of environmental risk factors among cases and community controls/polyclinic controls showed that those not having a house and living in a single room, have no or less number of the selected domestic items and low household monthly income were significantly more likely to have TB. Multivariable models were then constructed, including variables that showed an effect in the prediction of TB in the univariable analysis at the p<0.05 level of significance.

Conclusion. In the Absheron rayon male sex (OR=8.69), none/basic education (OR=4.69), secondary education (OR=2.41), not having a house (OR=16.1), and low household monthly income (OR=13.88) are the standout risk factors for TB disease.