Factors associated with drug resistant tuberculosis among tuberculosis patients of selected health care facilities of Bangladesh: A Case-Control study

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Abstract

The prevalence of tuberculosis (TB) is reducing in Bangladesh, but the emergence of drug resistant tuberculosis make the TB control effort more challenging and questionable. The present study aimed to identify the socio-demographic, behavioral and clinical risk factors for developing DR-TB.The study was an unmatched case-control study conducted in the four referral TB hospital and eight Upazilla health complex located in the Mymensingh, Netrakona, Tangail and Dhaka district of Bangladesh from August, 2018 to January, 2019. Drug resistant tuberculosis (DR-TB) patients were considered as cases and drug susceptible TB patients (DS-TB) were considered as controls. A total of 184 respondents, 92 cases and 92 controls were enrolled in the study from both the hospital and community. Face to face interview and hospital record review was done for data collection by structured questionnaire. Multiple logistic regression model was used to determine the associations between available factors and DR-TB and the results were presented by odds ratios (ORs) with their 95% confidence intervals (CI).History of previous TB treatment recognized as highly significant independent factor for acquiring DR-TB (OR 10.069; 95% CI 4.759-21.305).Patients those have not attended school (OR 3.123;95% CI 1.112-8.771), unemployed (OR 2.956; 95% CI 1.374-6.360), had family history of tuberculosis (OR 2.870; 95% CI 1.017-8.105) were also identified as significant associated factors. BCG vaccination was found protective from DR-TB (OR 0.419; 95% CI 0.205-0.855). Policy makers should be prioritizes and considers all identified associated factors in their planning and decision making to reduce the burden of DR-TB in the country.

Biography:

Dr.ShakiAktar is a medical doctor by training and completed her master of public health (MPH) in January,2019. She has been working as e medical officer in the maternal and child health division of International Centre for Diarrhoeal Disease Research,Bangladesh (icddr,b) since 2012.She has several publications and involve in prospective cohort study to find out risk factors of preterm birth and stillbirth. She also currently supervise a project aiming to identified association between adverse pregnancy outcome and neurocognitive development of under five children in Matlab,Chandpur,Bangladesh.

Speaker Publications:

1. "Association between antenatal care visit and preterm birth: a cohort study in rural Bangladesh"; bmjopen/10.1136/bmjopen-2019-036699

2. Time trends and sociodemographic determinants of preterm births in pregnancy cohorts in Matlab, Bangladesh, 1990-2014."; BMJ Global Health, 02 Aug 2019, 4(4):e001462

3. Time trends and sociodemographic determinants of preterm births in pregnancy cohorts in Matlab, Bangladesh, 1990–2014 /bmjgh-2019-001462

4. Associations between improved care during the second stage of labour and maternal and neonatal health outcomes in a rural hospital in Bangladesh; Accepted 22 July 2018 0266-6138/© 2018 Elsevier Ltd. All rights reserved.

5. Hypertension: adherence to treatment in rural Bangladesh – findings from a population-based study; Global Health Action Received 25 May 2014, Accepted 02 Sep 2014, Published online: 20 Oct 2014

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