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Final Abstract Number: 56.011

Session: Tuberculosis and Other Mycobacterial Infections

Date: Friday, April 4, 2014

Time: 12:45-14:15

Room: Ballroom

**Pulmonary tuberculosis among diabetic patients in Dharan Municipality, Eastern Nepal**H.S. Regmi<sup>1</sup>, R. Gurung<sup>2</sup>, S.K. Sharma<sup>2</sup>, B. Pradhan<sup>2</sup>, S.K. Bhattacharya<sup>2</sup><sup>1</sup> Bir Hospital, Kathmandu, Nepal<sup>2</sup> BP Koirala Institute of Health Sciences, Dharan, Nepal

**Background:** Tuberculosis (TB) remains a major cause of morbidity and mortality throughout the world. People with diabetes mellitus (DM) have a three times higher risk of developing active tuberculosis than people without diabetes. However, there is no such study has been carried out previously on the burden of pulmonary tuberculosis (PTB) among diabetic patients in Dharan. Therefore, this study was conducted to determine the prevalence of tuberculosis among diabetic patient.

**Methods & Materials:** A cross-sectional study conducted in tuberculosis laboratory, BPKIHS. Spot sputum specimens were collected from 100 known diabetic patients. The sputum samples were initially stained using Ziehl-Neelsen stain for detection of acid fast bacilli (AFB) followed by culture in Lowenstein Jensen Media according to national tuberculosis centre(NTC) guidelines. Data was entered in Microsoft Excel and analyzed using the SPSS version 11.0 statistical software and p-value <0.05 was considered as significant.

**Results:** Out of 100 diabetic patients, 8 were positive for pulmonary tuberculosis. Among them 6 were male. Seven patients had history of diabetes longer than 5 years and 5 of them were under insulin therapy. Among the positive cases, 7 patients were above 30 years of age. Of the total positive cases 6 patients were identified by microscopic examination, however all AFB positive specimens yielded the growth of *Mycobacterium tuberculosis* in LJ medium.

**Conclusion:** The study reveals that prevalence of pulmonary tuberculosis among diabetic patient is high though the sample size was small.

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**A Survey on TB status in Iranian prisons from 2010 to 2013**J. Miri<sup>1</sup>, M. Shahbazi<sup>2</sup>, M. Farnia<sup>3</sup><sup>1</sup> UNDP/GFATM/PO, Tehran, Iran, Islamic Republic of<sup>2</sup> GFATM([www.theglobalfund.org](http://www.theglobalfund.org)) - Iran prisons organization, Tehran, Iran, Islamic Republic of<sup>3</sup> prisons organization in Iran, Tehran, Iran, Islamic Republic of

**Background:** TB is a chronic infective disease which is one of the most important health problems all over the world. One out of three people in the world is infected with TB, in 2012 8.6 million people fell with TB, Despite of fighting against TB there were about 1.3 million deaths in 2012. And over 95% of TB death occurs in low-and middle-income. Prevalence rates in prisons are 2-10 times more than prevalence rate in society, The majority of world's prisoners are greatly drug users, criminals, homeless and poor people, who are living in suburbs of big cities. Comparing with other groups, because of these living conditions, the risks of TB, and other diseases are more significant among them.

**Methods & Materials:** This is a descriptive study which has been performed during 2010-2013. Data gathered quarterly because of different incidence in cold seasons.

Tb patient data and Tb control program indexes have been gathered from all prisons and analyzed

**Results:** In fifteen quarters from 2010 to 2013, 465 written reports have been gathered from all Iranian prisons. In which as whole 994 new smears positive inmates have been reported. Incidence rate of smear positive Tb cases in Iranian prisons have been calculated as follow:

Winter2010(New cases =35-Incidence rate = 16.65)-Spring-2010(37-16.28), Summer2010(46-19.46)-Autumn2010-(53-21.94)-Winter2011(59-23.23), Spring2011(68-25.58)-Summer2011(67-24.85)-Autumn2011(61-22.89), Winter2012(77-28.69)-Spring2012(64-23.22)-Summer2012(67-24.67), Autumn2012(85-32.59)-Winter2013(78-29.93)-Spring2011(110-42.62), Summer2011(87-35.64),

Two important and effective interventions performed in Iranian prisons in this period include:

1) To recruit one staff in each prison as TB coordinator with exact TOR and train them 2) To establish isolation room in each prison with >500 population and renovate their entrance blocks as quarantine ward

**Conclusion:** According to the study, it should be considered; appropriated case finding and complete Dots coverage are good point in Tb Program in prisons.

The incidence rate of new smear positive in Iran prison has been increased slightly.The quarterly comparing incidence rate reversals there are some reasons for describing this issue such as more case finding,establishment of isolation room and quarantine wards, recruiting TB focal point in each Iranian prisons and also overcrowded prisons,however in this study there are not enough facts to justify, so new study are recommended for these justification in future.

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