Hospital based prospective observational case study to evaluate the prevalence of diabetes mellitus among tuberculosis patients in a tertiary care hospital, in India

T.K. Charkha1,*, S. Narreddy2
1 Apollo Hospital, Hyderabad, andhra pradesh, India
2 Apollo Hospital, Hyderabad, India

**Background:** Diabetes mellitus (DM) is recognised as an important risk factor to tuberculosis (TB). India has high TB burden, along with rising DM prevalence. The recent change in life style of people of India and westernization of food habits has contributed much to make India the diabetes capital of world. Rapid urbanization has resulted in crowding of cities and has led to rapid spread of infections. So in a majorly immunocompromised India because of DM, TB is a common infectious disease. Thus DM and TB affect each other. In both the diseases the number of cases reported at tertiary care centres is just the tip of iceberg. We conducted an observational study at, Apollo Hospital, Hyderabad, India to look for prevalence of DM among TB patients.

**Methods & Materials:** Patients older than 18 years with TB and not otherwise immunocompromised were considered for the study. All sputum positive, sputum negative and extra-pulmonary cases currently on anti-tuberculosis treatment and newly diagnosed were included in the study that were admitted as inpatient or reported as outpatient at Apollo Hospital in department of Medicine. TB patients were screened for DM through a thorough history, detailed examination and lab investigations.

**Results:** Seventy-four patients met the criteria and were included in the study. In our study 24 of total 74 i.e.(32.43%) study patients were found to be diabetic; mean age was 46 ± 17.8, (males 48.5 ± 17.4 and females 44.3 ± 19.5); 61% were male. Among the diabetic population 80% were male (p value 0.0407). 11 of 24 DM patients were newly diagnosed which is 46% and 13 patients (54%) were known diabetics. 35 patient (47%) were suffering from pulmonary tuberculosis and 39 (53%) from extra-pulmonary tuberculosis.

**Conclusion:** High prevalence of DM among TB patients was found in or study at a tertiary care hospital in India. The prevalence of DM was more in patients with pulmonary TB, among males and patients with history of smoking. We recommend screening for DM among people with TB and vice versa, in a country like India with a high double burden of disease.