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**Original article**

**Effect of Glycemic control on pulmonary Tuberculosis in Diabetics**

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**Abstract:**

**Introduction**: Diabetes Mellitus was a known risk factor for Tuberculosis, link of DM and TB is more prominent in developing countries where TB is endemic and the prevalence of DM is rising. The higher susceptibility of Tuberculosis in diabetics may be related to a longer duration of disease or poor glycemic control.

**Aims:** To study the effect of glycemic control on presentation of Pulmonary Tuberculosis.

**Methods:** It’s a prospective cross sectional study.Patients above18 years,having Pulmonary Tuberculosis with Diabetes Mellitus over one year were included.Pulmonary Tuberculosis with other immunocompromised conditions like HIV, Chronic kidneydisease, Malignancy, Long term steroids, Immunosuppressive drugs were excluded. Glycemic control was assessed by glycatedhaemoglobin (HbA1C), <7 as controlled >7 as uncontrolled. Demographic, Clinical, Microbiological and Radiographic parameters of the patients were studied in respect to their glycemic control.

**Results:** There were 300 tuberculosis patients, 132 were diabetic, with 44% prevalence.The mean age 52.13+10.93,52%males, mean HbA1C9.04,93.2%had uncontrolled glycemic status. 93.2% had cough with meanHbA1C9.02. 79.54%were sputum AFB positive, mean HbA1C 9.3**.**78(59.0%) had lower lung field abnormalities; mean HbA1C8.87, 39(29.5%) upper lung field; HbA1C9.25 and 11.3%both lung fields; hba1c9.36.108(81.8%)had nodular infiltrative lesions, 18(13.6%) cavities with high HbA1C9.88..

**Conclusion:** Prevalence of diabetes among pulmonary tuberculosis is in the rise with uncontrolled diabetics predominantly effected. Poor glycemic control has significant effect on sputum smear positive rates, more number of cavities and on patients with retreatment regimens, with no effect on symptoms and radiographic distribution of the lesion.

**Key Words:** Pulmonary Tuberculosis, Diabetes Mellitus, Glycated Haemoglobin, HbA1C, AFB.