

The glycemic lever in endobronchial tuberculosis patients with type 2 diabetes affects the severity and treatment outcomes of TB disease

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Objective To illustrate whether glycemic lever in endobronchial tuberculosis(EBTB) patients with type 2 diabetes(E2D) affects the severity and treatment outcomes of TB disease. **Methods** A total of 157 EBTB patients with T2D were included in this study. 50 of them whose blood glucose in well control($HbA1C \leq 7.0\%$) were group A, the other 107 patients whose blood glucose in poor control($HbA1C > 7.0\%$) were group B. We compared composition ratio of subtypes of EBTB, rate of active EBTE, positive rate of sputum smear of those 2 groups before treatment. All patients received routine anti-tuberculosis chemotherapy and glucose-lowering medication. Active EBTE patients received bronchoscopic treatment meanwhile. After 1-month, there were 41 patients whose blood glucose in well control (fasting plasma glucose $< 7\text{mmol/L}$ & 2 hours postprandial blood sugar $< 11.1\text{mmol/L}$) in group B were classified as group B1, and the other 66 whose blood glucose in poor control were group B2. We compared the recovery time and sputum smear conversion rates of those 3 groups. **Results** In group A, the rate of active EBTE, positive rate of sputum smear are lower than group B, those differences have statistic significant ($\chi^2=10.448, p=0.001. \chi^2=13.443, p<0.001$). In group A, the recovery time of active EBTB is faster than group B1 and group B2. The time of sputum smear conversion in group A and group B1 is faster than group B2, and those differences have statistic significant. **Conclusion** The patient whose blood glucose in bad control has severer EBTB and worse treatment outcomes. The glycemetic control is an important part in the treatment of EBTB-T2D.

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