



Qiang Li

Capital Medical University
China

The diagnostic value of ROP-TB in active tuberculosis

Abstract:

Tuberculosis (TB) remains the leading cause of death from infectious disease in the world, posing a serious threat to human health and is a major public health challenge. Immunological examination is an important auxiliary means for TB diagnosis. However, the high cost of interferon-gamma release assays limits its use in underdeveloped areas. This study aimed to evaluate the clinical diagnostic value of recombinant overlapping peptide (ROP) technology in active TB. The study was conducted across four hospitals in China between September 2021 and August 2022. A total of 1,245 suspected pulmonary TB patients were screened and tested simultaneously using both ROP-TB and T-SPOT.TB assays to evaluate the clinical performance of ROP-TB in active pulmonary TB. Ultimately, 873 suspected TB patients were included in the statistical analysis. The results revealed the positive concordance rate, negative concordance rate and overall concordance rate were all above 93% between the ROP-TB and T-SPOT.TB assays. The Kappa value exceeded 0.8 ($P < 0.001$), indicating excellent concordance between the two assays. There was no statistically significant difference in sensitivity and specificity between ROP-TB and T-SPOT.TB. ROP-TB has comparable diagnostic performance to T-SPOT.TB. Given the simplicity of ROP-TB technology and low production cost, ROP-TB represents an effective auxiliary tool for TB diagnosis, especially in underdeveloped areas.

Biography

Qiang Li, Doctor of Medicine, she has been employed at Beijing Chest Hospital, Capital Medical University since 2010. She currently serves as a Chief Physician of the Department of Tuberculosis, graduate supervisor in Beijing Chest Hospital and academic visitor at the University of Oxford. She has published more than 20 papers in Chinese and English.