The value of QuantiFERON-TB Gold test in the differential diagnosis of intestinal tuberculosis

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Introduction

QuantiFERON-TB gold test seems to be a significant upgrade of the latent tuberculosis infection (TB) diagnosis. It has objective interpretation of test, no cross-reaction induced by BCG vaccination or non-tuberculosis Mycobacterium infection and no booster effect. However, there was few published study on its usefulness in intestinal TB.

Methods

Patients included in this study were those who performed QuantiFERON-TB gold test between July 2007 and April 2009 with colonic ulcerative lesions on colonoscopy. These patients were retrospectively reviewed to analyze clinical features and colonoscopic findings.

Results

Among 36 patients, 14 (38%) patients were diagnosed finally as intestinal TB and 13 (36%) patients were positive QuantiFERON-TB gold test. Only 3 patients were confirmed by caseating granuloma, other 11 patients were diagnosis by clinical and endoscopic improvement after empiric anti-TB treatment with following characteristic colonoscopic findings.

The sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV) of the QuantiFERON-TB gold test for intestinal TB diagnosis were 85.7%, 95.5%, 92.3% and 91.3% respectively. TB polymerase chain reaction had relatively high specificity (100%) and PPV (100%), but low sensitivity (15.4%) and NPV (45.8%). Caseating granuloma also had high specificity (100%) and PPV (100%) but very low sensitivity (21.4%) and NPV (66.7%).

Conclusion

QuantiFERON-TB gold test certainly improved our diagnostic yield for the differential diagnosis of intestinal TB. But more meta analysis study should be necessary.