

Comparative evaluation of Brucellacapt method and routine serological methods for diagnosis of human brucellosis

ABSTRACT

Introduction: Brucellosis is endemic in Iran. Since it affects many organs and the symptoms are non-specific, the diagnosis by clinical findings is difficult and may be easily missed. Many serological tests have been used for the diagnosis of human brucellosis. This study determined the diagnostic value of the Brucella standard tube agglutination test (SAT), ELISA (Brucella specific IgG and IgM) tests, 2ME Test, combs test and Brucellacapt test in suspected patients with brucellosis.

Patients & Methods: Ten patients with brucellosis who had positive blood cultures for Brucella species, and 47 suspected patients were included in the study. Serum samples collected from these patients were tested by brucellacapt and conventional serological tests.

Results: In the patients with blood culture positive, 4 of 10 samples gave positive results with SAT, 7 with both coombs and brucellacapt tests, and all patients were positive with ELISA (IgG + IgM). Out of 47 with blood culture negative, ELISA (IgG + IgM). SAT, Brucellacapt were positive in 28, 18, 21 patients respectively.

Conclusion: According to this study, none of serological tests alone was positive in all suspected and confirmed patients with brucellosis. For this reason, we strongly suggested the use of combination of tests for diagnosis of brucellosis. The sensitivity of ELISA (IgG + IgM) was higher than conventional tests.

Key words: Brucellosis, Brucellacapt, ELISA, conventional serologic tests.