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Comparison of the Diagnostic Value of the Standard Tube Agglutination Test and the ELISA IgG and IgM in Patients with Brucellosis

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Abstract: Background and Aims: Brucellosis is endemic in Turkey. 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 compared the diagnostic value of the Brucella standard tube agglutination test (SAT) with that of ELISA (Brucella specific IgG and IgM) tests in patients with Brucella bacteremia. Patients and Methods: Thirty-two patients with brucellosis who had positive blood and/or bone-marrow cultures for Brucella species, and 20 healthy individuals as controls were included in the study. Results: At the end of the study SAT was positive in 30 of the 32 patients, ELISA IgG was positive in 26 and ELISA IgM was positive in 32. Of the 20 control sera, all were negative in SAT, 1 was positive in ELISA IgG, and 3 were positive in ELISA IgM. The positive predictive value of SAT was 100.0% and the negative value was 90.9%. The positive and negative predictive values for ELISA IgG were 96.3% and 76.0%, and for ELISA IgM were 90.9% and 89.5%, respectively. Conclusions: SAT may be preferred to ELISA in acute brucellosis because it is cheap and easily applicable.

Key Words: Brucellosis, ELISA, Standard tube agglutination test