

## Comparison of Wright Agglutination Test and ELISA in Diagnosis of Brucellosis

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### Abstract

**Background and Objective:** In our country, the Wright test routinely is used for diagnosing brucellosis. Because of its low sensitivity, the range of false-negative results is high. Therefore, we aimed at comparing Wright and ELISA in the people suspected brucellosis.

**Material and Methods:** The results of Wright, 2ME, Coombs Wright tests were compared with Anti-Brucella IgG, Anti-Brucella IgM. Of 1183 subjects referred for Wright test, 148 of them were investigated for Coombs Wright and 228 for 2ME Wright. In addition to Wright test for 32 cases, Brucella IgG and IgM classes were also experimented.

**Results:** Wright test was negative in 95.4% of cases. Of these negative results, 2.3% were positive for Coombs Wright. Eight-point-five percent of the cases were positive for Coombs Wright test and 4.7% for 2ME Wright test. Sixteen cases were negative for both Wright and ELISA. In 8 cases of Wright-negative, ELISA IgM class was positive and IgG class was negative, and in 4 cases of Wright-negative, ELISA IgM was negative and IgG was positive. About 4 cases of Wright-positive, IgM and IgG antibody classes were positive.

**Conclusion:** Due to the mismatch between the results of Wright agglutination test and ELISA method and with regard to availability, high sensitivity and determining the type of antibody classes in ELISA, it is focused on ELISA method for brucellosis diagnosis.

**Keywords:** Brucellosis; Wright; ELISA