

**Abstract:**

Brucellosis is one of the most common between human and animal diseases. The disease not only threatens public health, also it can cause abortions and economic losses in livestock. This study was conducted to evaluate the prevalence of Brucellosis. In the sheep and goats in Sistan region and the sensitivity and specificity of serological tests was calculated. In this study 150 blood samples were collected through the Jugular vein heep and goats, which includes 58 blood sample of goats and 92 blood sample of sheep, and at the same time data about age, gender, abortion and Pregnancy or non-pregnancy of these animals were gathered using a quastionary, the samplese weer collected during February and March 2017. Afre perepration of serum, the sera were stored at  $-20^{\circ}\text{C}$  until analyzed by serological and PCR tests. The results show that 17 sampes (%11) were positive in PCR test. The optimum cut off for write and 2ME tests were  $\frac{4}{40} \leq$  and  $\frac{3}{40} \leq$  respectively. With these cut off sensitivity and specificity for wirtte test were %88 and %90 respectively. Also sensitivity and specificity for 2ME test were %100 and %92 respectively. The lack of appropriate preventive measures in this region could lead to widespread epidemic of Brucellosis among human and animal populations that requires appropriate plan to control, prevention and eventually eradicate the infectious agent.

**Keywords:** Serological tests, Sensitivity, Specificity, *Brucella*, Sistan



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**Study of seroprevalence of Brucella in sheep and goats in Sistan district, and  
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