CHAPTER - VI

SUMMARY AND CONCLUSION

The Serodiagnostic study of animal handlers for Brucellosis was conducted to detect the antibody levels in the serum of individuals occupationally exposed to animals. The antibody against *Brucella abortus* was detected by three techniques which consisted of both conventional and newer methods. A total of 445 serum samples from occupationally exposed individuals, grouped into three – Group I, II and III, were screened for antibodies against *Brucella abortus*. Group I consisted of a total of 210 serum samples, which included 110 serum samples from slaughter house workers and 100 samples from healthy individuals working in cashew factories taken as control. Group II consisted of a total of 165 serum samples, which included 83 samples from Veterinary doctors, 47 samples from livestock inspectors and 35 serum samples from persons working in schools taken as control population. Group III consisted of a total of 70 serum samples, which included 45 samples from farmers owning cow, 18 from farmers owning goat, 12 from farmers owning buffalo and 15 serum samples were from farmers not having neither cow, goat nor buffalo in their houses, taken as control.

All serum samples were subjected to RBPT, STAT and Indirect ELISA. Out of the 445 samples tested, 77 (17.3%), 2 (0.44%) and 13 (2.92 %) samples were found positive for antibodies to *B. abortus* by RBPT, STAT and I-ELISA respectively. Among veterinary practitioners (n=83), RBPT tested positive in 17 (20.48%) while I-ELISA tested positive in 6 (7.22%), but STAT did not give any
seropositivity. Among livestock inspectors (n=47) RBPT tested positive in 8 (17%) while STAT and ELISA tested positive in none. Among slaughter house workers (n=110), RBPT tested positive in 31 (21.18%) while STAT tested positive in 2 (1.81%) and I-ELISA in 7 (6.36%). Among farmers (n=55), RBPT tested positive in 2 (3.63%) while STAT and ELISA tested positive in none.

The present study suggests that brucellosis is endemic in the surveyed population. Among the three occupational groups, Veterinary doctors are the most exposed to brucellosis as detected by I-ELISA. This group is closely followed by slaughterhouse workers. Farmers owning cow, goat and buffalo were the least exposed individuals as detected by I-ELISA. RBPT can be used as a rapid screening test in large population. Confirmation could be done using tests with more specificity like I-ELISA. High incidence of *Brucella* antibodies among veterinary practitioners suggests that they are being more exposed to infective materials while that among slaughter house workers points to their unhygienic status and the necessity for providing proper protective measures.

To conclude, a coordinated eradication programme, including public enlightenment and education should be instituted by government. Routine or regular requests for laboratory diagnosis as is being done for other endemic disease like typhoid fever and malaria should be undertaken to enhance proper diagnosis.