Epidémiol. santé anim., 1997, 31-32

STUDIES ON CANINE BRUCELLOSIS IN PUNJAB STATE OF INDIA AND THEIR PUBLIC HEALTH SIGNIFICANCE

Aulakh R.S., Gill J.P.S., Sonwinder Kaur, Joshi D.V.[1]

Serum samples from 112 pet dogs were screened for the presence of Brucella canis agglutinins by using canine brucellosis antibody test kit. It was found that 9.8% samples were positive. Among the animals showing clinical symptoms ranging from persistant temprature, anorexia, abortions, orchitis, itching etc., 32.6% were positive. The dogs found positive for brucellosis were treated with a combination of septran and gentamycin. All the animals responded to the treatment, but in 3.5% cases the symptoms reappeared. There was no sex or breed differentiation to Brucella canis infection. Because of close association of pet dogs with the owners, this infection is of great public health significance.

Brucellosis is one of the most important zoonotic disease known to man . Canine brucellosis caused by *Brucella canis* is gaining importance because of its significance as an emerging zoonotic disease. *Brucella canis* was first observed by Carmichael in 1966 in the U.S.A. in a beagle colony and had been reported by many workers from different countries (Tanbulluoglu and Diker 1983 and Delgado and Centorbi 1990). In India *Brucella canis* infection was reported for the first time by Thanappa Pillai *et al* (1991). In the present investigation 112 serum samples from pet dogs were screened for the presence of *Brucella canis* agglutinins by using canine brucellosis antibody test kit (Pitman-Moore, Inc. Washington crossing, N.J. 08560). These serum samples were tested by putting one drop(0.03 ml) test serum on the test area on one side and one drop of positive serum control with the help of dropper on the other test area of the card. The one drop of the Canine Brucellosis agglutination antigen was added in each of the test serum and positive control serum and mixed thoroughly with the help of a wooden stick. Then compared the test serum with the positive control serum for the presence of agglutination within 30 sec.

The results indicated that 9.8% of the dogs were found serologically positive for canine brucellosis. Among the animals showing clinical symptoms ranging from persistent temperature, anorexia , abortions , orchitis , itching , etc., 32.6% were positive. While Tsai *et al* (1983) studied the prevalence of brucellosis in canine in Taiwan employing plate agglutination test to 1205 samples found that 10.9% were positive. Germano et al (1987) while studying the prevalence of *Brucella canis* in Brazil tested 352 serum samples among which 5.4% were found positive with a modified rapid slide agglutination test. However, Katami *et al., 1991* made an epidemiologial survey in Towada area (Japan) and found that only 1.9% of 259 dogs were positive for *B.canis* agglutinins.

The dogs found positive for brusllosis were treated with a combination of septran and gentamycin. All the animals responded to the treatment but in 3.5% cases the symptoms reappeared. There was no sex or breed differentiation to *Brucella canis* infection. Because of closed association of pet dogs with owners this infection is of great public health significance.

BIBLIOGRAPHY

Delgado,M.G. and Centorbi,O.N. ,1990. Serological study of Brucellosis in farm dogs in rural areas of San Luis province Argentina Medicinia Veterinaria 71(2),74-78.

Germano,P.M.L.,Vasconellos, B.A., Ishizuka, M.M., Passos, E. and Erbolato,E.B.,1987. Prevalence of *B. canis* infections in dogs of the city of Campinas, S.P. Brazil. Revista da Faculdade de Medicen Veterinaria e Zootecnia da Universidale de Sao paulo 24(1),27-34.

Katami, M., Sato, H., Yashimura, Y., Suzuki, J., Suzuki, Y., Nakano, K. and Saito, H. 1991. An epidemiological survey of *B. canis* infection of dogs in Towada area of Azmoriprefecture (Japan). J. of Vet. Med. Sci. 53 (6), 1113-15.

Tsai, I.S., Lu, Y.S., Isayama, Y. and Sasahera, J. 1983. Serological Survey of B. canis infection in dogs in Taiwan and the isolation and identification of B. canis. Taiwan J. of Vet. Med. and Anim. Husb. 42, 91-98.

Thanappa Pillai, M., Nedunchelliyon,S. and Raghavan, N. 1991. Serological and Bacteriological detction of B. canis infection of dogs in Madras. Indian Vet. J. 68, 399-402.

Tanbulluoglu, E. and Diker, S. 1983. Serologocal studies on *Brucella canis*. Veteriner Fakultesi Dergisi Anskara Universitesi 30(1),14-18

[1] Department of veterinary public health and epidemiology, COVS, Punjab agricultural university, Ludhiana, 141004 Punjab, India