

## CHAPTER FOUR:

### DISCUSSION:

In this investigation a total of 192 serum samples were tested from 22 farms and three markets in Khartoum state. The overall CBPP seroprevalence observed in this study was 17.19% by using ELISA test and it was lower than those reported in previous study. In previous study the prevalence of CBPP in Khartoum state was 57% (Amira Shareef. 2010).

In previous study they found that there were positive association between the density of insect population and the present of the disease, they found that insect ( Testes, mosquitoes, house fly, and honey bees) transmit CBPP (Ismail Iro, Nigeria), and this result in agreement with the present study which indicate that there strong statistically association ( $p=0.000$ ) between the density of insect population and CBPP. So, the infection occur when there is a heavy density of insect which may be due to the stress factor caused by the irritation due to biting of insect.

The study established that age of the animals was associated with the CBPP, the disease did not occur in animals less than six month and the disease prevalence increase with age, there is less prevalence in age from 6 - 12 month (8.33%) and there is high prevalence in age more than 12 month (19.25%). And this result may show that there is association between the disease and the immunity of the animal which acquired it from his dam.

Also may indicate that the duration of exposure to the causative agent is too longer in older animals.

The study shows that the prevalence of the disease is higher in animals which were reported with previous CBPP vaccination (25%) compared with animals that did not vaccinate (14.58%). This finding may suggest that the owner did not vaccinate their animals regularly so, the immunity may be reduced and animals be susceptible to infection, the immune responses measured by c-ELISA following vaccination wane after three months. The other reason may be the dosage which given to animals did not accurate or due to bad storage or transportation for the vaccine and this result agreement with previous study in Kenya (Niwael.J.2009).

The result showed statically significant association with sharing other animals in grazing land, signifying that the animals which did not sharing other herds in grazing land increase the risk of CBPP, and this fact may due to found animals in close system, so, it will increase the contact between animals in the herd and the causative agent transfer to the food then spread the infection in the herd.

The study indicate that the prevalence of the disease is reduced when the herd size increased.

PREVALENCE AND RISK FACTORS ASSOCIATED  
WITH CONTAGIOUS BOVINE  
PLEUROPNEUMONIA IT IN KHARTOUM  
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By

Ibtisam Elsadig Hag Elhassan

B.V.SC.(2000)

University of Khartoum

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Supervisors

Prof. Abdelhamid A.M. Elfadil

Prof. A/Mutaal A.O. Shallali

Department of Preventive Veterinary Medicine

College of Veterinary Medicine  
Sudan University of Science and Technology  
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