A CASE REPORT OF SALMONELLA ENTRITIDIS ISOLATES IN CHICKEN IN IRAN

Kargar Moakhar R., Vand Yosefi J. and Akhavizadegan, M. A

Summary

In a survey of investigation and classifying the causes of torticulis and trembling in day old chiken, it has been found that there are several factors causing nervous disturbances in day old chiken in which Salmonella entritidis is observed and described in this case report.

Introduction

Paratyphoid infection of poultry exists and is reported all over the world, (2, 4). However it has been often found that particular serotypes which were previously rare, may become increasingly common in one region or in a country. The more commonly isolated salmonella serotypes in poultry in any country are usually characteristic of that country, (7, 5, 4).

In a group of 1700 serological type motile sal., there are almost 10 serotypes which are pathologic for poultry (mostly young chiken) and hazardous for human health, among which Sal. entritidis is counted as one of the ten serotypes, (1, 6, 3, 4).

Reports from the departments of path. and bacteriology at the State Razi Institute, during last 2 years, indicate that more than 50% of Sal. isolates from the poultry and poultry products, submitted to the lab. were Sal. entritidis.

Materials & Methods

Five breeders farms, and their hatcheries were chosen for surveying of day old chiken disorders. All day old chiken were carefully observed and those showing any clinical symptoms as well as their
Fig. 1- Bacterial colonies in the cortex of brain section. X 60

Fig. 2- A higher magnification of fig. 1. X 1250
parents were picked up and submitted to the laboratories for bacteriological, virological and histopathological studies.

Results

From 2 out of 40 batches we found out that there were some colonies of enterobacteriacaea like organism in brain section (Fig. 1, 2). Following bacteriological investigations, serotypes of Sal. enteritidis could be isolated, from the brain and internal organs of the same chicken and from the ovary of the parent flock.

The clinical symptoms were torticulis and/or the head turned up from one side, (Fig. 3, 4).

Discussion

Since this investigation was based on finding out the cause of torticulis and trembling in day old chicken, several routine tests were tried to find out different causing agents, in which bacterial invasion (Sal. enteritidis) could be blamed for.

Ethiological data revealed that the breeders were healthy carriiers (in spite of isolating Sal. enteritidis from feaces and ovaries of the parent stock, they did not show any clinical symptoms of the disease), and that the infection was transfered vertically, through the eggs.

Efforts were made to isolate the bacteria from food ingredients or drinking water, and all but only 2 cases were negative. In rare cases, workers were showing some latent infection which could supposedly be the source of infection spreading. However even though some latent Newcastle cases were identified serologically, at the time of investigation, but we could not isolate any NDV from such day old chickens, perhaps due to the presence of bacterial infection. Anyhow, further investigation is needed to clarify the definite role of Sal. enteritidis and its relation with Newcastle disease in day old chicken mortality.
REFERENCES

4- Hofstad M.S. 1978 Disease of Poultry P. 117.