PATHOLOGY OF SPONTANEOUS LIVER AFFECTIONS IN CHICKENS

Neelu Gupta, S.L.Ali and S.Shakya

Department of Pathology
College of Veterinary Science & A.H., ANJORA, DURG (C.G.) 49100, India.

ABSTRACT

The results of the study indicated that the incidence of pathological changes in liver varied according to the gross and microscopic lesions. The present study was carried out on 300 liver sample. Haemorrhagic hepatits was maximal (36.84 %) and inclusion body hepatitis was minimal (5.26%). in the liver examind.

Hepatic cells are among the highly specialized cells in the body. Pathological studies of liver are important for diagnosis of certain diseases. The present work has been undertaken to study the gross and microscopic changes in liver of chickens.

A total of 300 chicken livers were examined, in which 95 (31.66%) showing gross abnormalities were collected for Histopathological examinations.

Occurrence of different type of hepatitis are probably due to abnormalities in climate, unhygienic management and infectious agents such as- bacteria, virus, fungi etc. Different type of hepatitis (Table and graph ) observed were included.

1. Acute hepatitis: The acute hepatitis was observed in 20 (21.05 %) cases. At necropsy the affected livers were enlarged, friable and congested. Weight of affected liver were increased. Microscopically, sections of affected liver showed fatty changes, (fatty round vacuoles), granular cytoplasm, infiltration of inflammatory cells, degeneration and coagulative necrosis of hepatic cells.

2. Chronic hepatitis or Cirrhosis: The chronic hepatitis was noticed in 8 (8.42 %) out of affected liver sample. Grossly, liver was hard in consistency. Microscopically, proliferation of fibrous tissue in place of hepatic cells.

3. Haemorrhagic hepatitis: In 35 (36.84 %) cases haemorrhages were found in liver. Grossly pin point and foci of haemorrhages were noticed. Microscopically, infiltration of erythrocytes surrounded the hepatic cells. Central and portal vein were filled with RBCs.

4. Fatty degeneration: Fatty livers were observed in 15 (15.80%) of the cases. Grossly, the livers were enlarged, friable, brownish yellowish in colour. Microscopically, fatty vacuoles were seen in hepatic cells. Hepatic cells showed loss of architecture and the nucleus were pushed toward the margin.

5. Necrosis: Necrosis of hepatic cells and nucleus were noticed in 12 (12.63%) cases. Grossly, white necrotic foci were seen. Microscopically, coagulative, caseous necrosis was observed in hepatic cells. Hepatic nucleus showed pyknotic, and karyorhexis necrosis.

6. Inclusion body hepatitis: Inclusion body hepatitis was seen in 5 (5.26%) cases. Grossly, liver became too much enlarged, congested and contained focal areas of necrotic foci. Microscopically, hepatocytes were contain basophilic intranuclear inclusion bodies, surrounded by a clear halo ring structure, haemorrhage, coagulative necrosis and fatty degeneration.

In present study hepatitis was reported in 95 (31.66%) cases. There were pathological changes might be produced due to some toxicity, bacterial, viral and parasitic infection, which might have also occur due to poor hygienic or change in climate. The similar findings were also reported by earlier workers ( Calnek, et al.,...
TABLE 1: Pathological Condition of the liver in chickens.

<table>
<thead>
<tr>
<th>Lesions</th>
<th>Total sample (300)</th>
<th>Affected sample (95)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Number</td>
<td>Percentage of Incidence</td>
</tr>
<tr>
<td>Acute hepatitis</td>
<td>20</td>
<td>6.67</td>
</tr>
<tr>
<td>Chronic hepatitis</td>
<td>8</td>
<td>2.63</td>
</tr>
<tr>
<td>Haemorrhagic hepatitis</td>
<td>35</td>
<td>11.67</td>
</tr>
<tr>
<td>Fatty degeneration</td>
<td>15</td>
<td>5.00</td>
</tr>
<tr>
<td>Necrosis</td>
<td>12</td>
<td>4.00</td>
</tr>
<tr>
<td>Inclusion body hepatitis</td>
<td>5</td>
<td>1.67</td>
</tr>
</tbody>
</table>

Pathology of spontaneous liver affections in chickens


REFERENCES