

RESEARCH ARTICLE

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STUDY OF THE PATHOLOGICAL LESIONS IN MICE FED SEGMENTS OF TAENIA HYDATIGENA

ABSTRACT:

The present study includes isolation and identification of the dog's Cestoda *Taenia hydatigena* from the small intestine of the stray dogs in Basrah city. Mice *Balb/ c* were infected by feeding 1-2 gravid segments segment/ mice. Five mice were killed after one, two and three months post infection. The histological sectioning of liver showed infiltration of inflammatory cells and a clear vacuolation of hepatocytes after one month. Minimal diffuse vacuolation of hepatocytes and barnachymal focus of mononuclear cells were observed after two and three months of feeding. In the spleen, prominent white pulp lymphoid tissues associated with lymphofolical formation were noticed after one month of infection. An extramedullary haematopoiesis and presence of megakaryocytes were noticed after two months of infection with a lymphoid hyperplasia of white pulp lymphoid tissue after three months of infection. In the lungs a prominent perbronchiolar lymphoid tissue were found after one month of infection. Areas of alveolar emphysema with bronchiolar epithelial hypertrophy and proliferation besides prominent per bronchiolar lymphoid tissue were seen after two months of infection. After three months of infection an advance of bronchi pneumonia with a presence of mixed inflammatory cells in bronchioles and alveoli and bronchiolites with intraluminal inflammatory cells, hypertrophy and proliferation of bronchiolar epithelium, and congestion with emphysema were observed. Also a pulmonary alveolar edema was found in lung of mice after three months of infection. The small Intestine has changes like infiltration of inflammatory cells in lamina propria in mice after one month of infection. While, at two months post infection a moderate infiltration of mixed inflammatory cells in the lamina propria with evidence of papillary proliferation in villa structure were recorded. After three months of infection, an increase in the number of inflammatory cells in lamina propria was seen.

KEY WORDS:

Bronchi Pneumonia, Extramedullary
 haemopoiesis, Inflammatory cells, *Taenia
 hydatigena*

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ARTICLE CODE: 38.01.12**INTRODUCTION:**

Dogs are hosts of a large variety of intestinal parasites that can cause ill- thrift and diarrhea, but tapeworms which do not generally cause signs of disease in the dog, can also infect sheep causing their carcass to be condemned at slaughter. Adult of *T. hydatigena* are found in the small intestine of canines and other carnivores as a final host, but the larval stage called *Cysticercus tenuicollis* are found in the peritoneal membrane, liver and abdominal cavity of ruminants , rodents and other wild animals as intermediate hosts, as well as human (Michigan Gov. Home, 2009).

In Iraq, Leiper (1957) was the first who recorded the *Cysticercus tenuicollis* infection in the peritoneal cavity of sheep. Mathur *et al.* (1974) and Al-Janabi and Rao (1983) recorded an infection in the peritoneal cavity of sheep in north Iraq by *Cysticercus tenuicollis*, while Al-Alousi *et al.* (1980) was the first who recorded *T. hydatigena* from stray dogs in Mousl city. Abul-Eis (1983) recorded 52.63% of infection with *T. hydatigena* between stray dogs in Baghdad city. Al-Tae *et al.* (1988) recorded the percentage of infection between stray dogs in