



## **Echinococcosis- Review**

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### **Abstract**

This parasite (*Echinococcus granulosus*) is a tapeworm that is widespread in many countries, and it is also considered a disease spread among humans and some animals, which are considered an intermediate host, while dogs are considered the final host. The infection is limited to the intestines in dogs. In the intermediate host the cystic stage that affect the organ that was affected. The severity of the infection depends on the number and size of the cystic stage.

This review combined several studies of the spread of the disease between different countries and for different animals.

**Keywords:** Echinococcosis, *Echinococcus granulosus*, cystic stage.

### **Introduction**

It is one of the important diseases spread between humans and animals, and the cause is a type of tapeworm, its length is about 3-7 mm, which dogs have a definitive host, that is, they contain adult worms. As for the intermediate host, humans and some animals that carry the cystic stage inside (1, 2,3).

This disease in the intermediate host does not show symptoms clearly due to the slow growth of the hydatid cyst, which is the main cause of symptoms for the intermediate host as humans and some animals (4,5,6).

It is observed that the prevalence of this disease is high in these temperate countries, inclusive the entire Mediterranean littoral , South America, south and central parts of the former Soviet Union, central Asia, Australia, China and parts of Africa, which affects both animals and humans (7 , 8).

Between 1990 and 1998 in northern Iraq (Erbil), 99 people with hydatidosis were treated surgically in two hospitals, i.e. about 12.4 cases annually.

From these percentages, the rate of infection per 100,000 people was estimated, with two cases infected with this disease (9).

In Iran the 32,130 slaughtered livestock for detection of hydatidosis, (19,950 sheep, 7000 cows and 5180 goats) were examined during three years, and the total infection rate was 2043 (6.35%).

The highest and lowest prevalence of this disease were in cattle and goats, respectively.

It was noted that there is a higher incidence of infection in females (54%) than males (46%). (10).

This study was conducted in one year north of Jeddah, Saudi Arabia, in one of the slaughterhouses, to find out the prevalence of hydatid disease among animals, which was the method of collecting sacs, their infection sites, and their number randomly.

The total was (91,348) of slaughtered animals. Camels (541), cows (615), goats (48370) and sheep (41822) were examined microscopically and microscopically.

The prevalence of infection were 6.86%, 3.63%, 69.6%, 19.85% in camels, cattle, sheep and goats, respectively. (11).

The total number for detection of hydatidosis in animals slaughtered in abattoirs in northern Jordan was as follows: 704 sheep, 280 cows, 391 goats and 68 camels. The prevalence of this disease in these animals was 4.0, 11.4, 3.6 and 8.8%, respectively. In general it turns out that large animals are more susceptible to infected than small animals (12).

## Conclusion

There are different ratios between infection between animals and humans, as well as between old and young ages. This is attributed to several reasons, including temperature, humidity, and other weather conditions.

It also does depend on the percentage of parasite presence in the infected host and the host's immunity.

The importance of human personal hygiene or the cleanliness of the animal's surroundings has a significant impact on the spread of this disease.

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