



Epidemiological studies on Toxoplasmosis in animals and humans
in Beni-Suef.

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Toxoplasmosis is considered to be one of the zoonotic diseases which are caused by a parasitic protozoan *Toxoplasma gondii* (*T.gondii*), which infests humans worm blooded animals and birds.

Toxoplasmosis causes abortion in pregnant women in addition to great economic losses in specially sheep and goats. So that this epidemiological study aims to determine the prevalence of the sporulated oocyst of *T. gondii* in cat feces (either owned or stray cats), also the prevalence of the disease in human beings of different ages and sexes, and the prevalence of the disease in the blood of animals slaughtered abattoirs with demonstration of toxoplasma cyst in animal meat.

The steps of the study were done as follows:

A total 509 animals, cat, and human samples were collected from different localities in Beni-Suef Governorate.

Fecal samples were collected from stray and indoor cats in the following respective numbers, 90 stray cats and 12 indoor cats.

26 of stray cat samples were examined parasitological by concentration flotation technique.

26 of stray cat samples show sporulated oocysts in their feces while two only of indoor cats show that.

Concerning human samples, they were collected for serological examination. A total of 165 blood samples were collected from inpatients, outpatients and normal individuals for serological examination by IHAT



and ELISA test. Out of these samples, 78 were chosen according to their IHAT results for examination by ELISA detecting IgM and IgG.

Concerning the animal samples, they were collected from different animal species slaughtered in abattoirs in the following respective numbers: cattle 60, buffaloes 30, sheep 97, goats 29 and camels 26.

Of these animal's blood samples were examined serologically by IHAT.

The animal tissue samples were examined by digestion technique.

Examination of cat fecal samples revealed an incidence of 28.9% and 16.7% for stray and indoor cats respectively.

Regarding the total incidence of serologically positive human cases it was 47.27%.

The majority of human cases (58.9%) were tracked back to direct contact with cat whereas only 29.48% contracted the infection ingestion of raw or under cooked meat, and only 11.53 has unknown source of infection.

The human age-wise positivity was founded maximum in the group 31-40 years (55.17%) followed by the age group 21-30 (51.4 %), while it was (50%) in the age group 41-50 years.

The incidence of serologically positive cases was higher in males (50.77%) than in females (45%).

Toxoplasmosis was detected throughout the year without significant statically difference as follows respectively: Winter (29.5%), Spring (25.6%), summer (21.8%) and autumn (23.1%).

The personal contact with cat, and raw or undercooked meat occupations accounted for the majority of serologically positive cases who show incidence of 29.5%, 28.2%, for farmers, house wives respectively.

There was a significant relationship between toxoplasmosis and abortion as 71.4% from the tested pregnant females having abortion due toxoplasmosis while only 28.6% aborted due to other causes.



The infection rate statically differs in the three gestational periods as it was 21.62% in the first stage, 20.83% in the second stage and 18.18% in the third stage.

Examination of cattle, buffaloes, goats and camels blood samples revealed incidence of serologically positive animals of 18.13%, 10%, 13.8% and 7.7% respectively while the isolation of the cyst from their meat failed.

Examination of sheep blood samples revealed incidence of serological positive animals of 31.9% and successful isolation of the cyst from its meat by the digestion technique.

The study ended by some advices for prevention and control of Toxoplasmosis.