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ARABIC SUMMARY	

ABBREVIATIONS

- Ab-ELISA: indirect ELISA.
- Ag-ELISA: monoclonal antibody based sandwich enzyme linked immunosorbent assay.
- CDC: Centers for Disease Control and Prevention.
- CFT: complement fixation test.
- CIA: competitive inhibition assay.
- CIE: counter immunoelectrophoresis.
- CPK: creatinine phosphokinase.
- CSF: cerebrospinal fluid.
- CT: computerized tomography.
- E/S: excretory/secretory antigens.
- EEG: electro-encephalographic recording.
- EITB: enzyme-linked immuno-electrotransfer blot.
- ELISA: enzyme-linked-immunosorbent assay.
- IET: immunoelectrotransfer blot assay.
- IFAT: immunofluorescence antibody test.
- IHA: indirect hemagglutination.
- LPG: larvae per gram.
- MRI: magnetic resonance imaging.
- NCC: neurocysticercosis.
- OD: The optical density.
- OIE: Office International Des Epizooties.
- P/A/M: Provinces/Autonomous Regions/Municipals of China.
- USDA: United States Department of Agriculture.
- WB: western immunoblot assays.

SUMMARY

Trichinosis and Taeniasis are important foodborne parasitic diseases worldwide, not only for their economic impact on livestock industry and international trade of cattle and pigs but also for the cost of diagnosis and treatment of the infected patients.

This study aimed to determine the occurrence of zoonotic Taeniasis and Trichinosis in some localities in upper Egypt (Assiut and Sohage Governorates) and discussing its public health importance.

A total of 1222 animal carcasses (666 cattle, 406 buffaloes and 150 pigs) collected from different localities in Assiut and Sohage Governorates, were examined by detailed meat inspection and confirmation of the infection were done by using microscopic examination. The occurrence of bovine *Cysticercosis* by using detailed meat inspection was 1.2% in cattle (1.57% in Assiut Governorate, 0.0% in Sohage Governorate) and 0.49% in buffaloes (0.75% in Assiut Governorate, 0.0% in Sohage Governorate). The highest occurrence of *Cysticercus bovis* among cattle was recorded in El-Matieea abattoir (8.0%), while the highest occurrence among buffaloes was found in El-Nawawrah abattoir (1.9%). There was a relationship between the age of the animal and the occurrence of the bovine *Cysticercosis*. The higher occurrence were recorded among cattle and buffaloes above 2 years (2.7% & 0.9%) than those below 2 years (1.1% & 0.6%), respectively. Female cattle and buffaloes were more susceptible to bovine *Cysticercosis* (2.7% & 1.3%) than males (1.4% & 0.5%), respectively. Detailed meat inspection showed superior sensitivity (1.57%) than routine meat inspection (1.37%) in detection of *Cysticercus bovis* among the examined cattle. *Cysticercus cellulosae* were not recorded among the examined 150 pigs.

Concerning to human infection with Taeniasis or Cysticercosis, a total of 425 stool and 92 serum samples were collected from patients in different localities of Assiut and Sohage Governorates. The occurrence of Taeniasis was 0.7% with a rate of 0.92% in Assiut Governorate and 0.0% in Sohage Governorate by using sedimentation technique, while the occurrence of *Taenia solium*/Cysticercosis was 6.52% with a rate of 8.1% in Assiut Governorate and 3.33% in Sohage Governorate by using ELISA. Higher occurrence of Taeniasis and human Cysticercosis were recorded among females (1.96% & 8.47%) than males (0.0% & 3 %), respectively. Middle aged group (20-40 years) showed to be highly susceptible to Taeniasis (1.6%) by using stool examination, while patients above 40 years were highly susceptible to *Taenia solium*/Cysticercosis (11.1%) by using ELISA.

The occurrence of Trichinosis among 150 pigs was 4.0% with a prevalence rate of 5.0% in Assiut Governorate and 2.0% in Sohage Governorate. Male pigs were more susceptible (4.8%) than females (2.2%). There was a reverse relationship between the age of pigs and the occurrence of Trichinosis. Higher occurrence was among pigs below 2 years (6.7%) than pigs above 2 years (2.9%). Diagnosis of *Trichinella spiralis* by digestion technique showed to be more sensitive (4.0%) than trichinoscope (3.33%).

Out of 92 serum samples were collected from patients of different localities suffered from muscle pain with a history of eating pork in Assiut and Sohage Governorates. The occurrence of Trichinosis in human was 60.8% with a rate of 67.7% % in Assiut Governorate and 46.7% in Sohage Governorate by using ELISA. There was a reverse relationship between the patient's age and the occurrence of Trichinosis. The highest occurrence was recoded among age group below 20 years was 63.1% followed by 58.4% & 25.0% among age

groups 20-40 and above 40 years, respectively. Higher occurrence of Trichinosis was detected in female patients (61.8%) than males (56.3%).

Public health education is considered the key factor for control of Taeniasis, human Cysticercosis and Trichinosis.

Also, meat inspection remains the most widely used method for detection of infected carcasses with Cysticercosis.

The animal and the public health significance together with the principles of elimination and control of the disease were discussed. Also, It is very important to carry regular and well controlled epidemiological investigations to estimate and evaluate the occurrence of human Cysticercosis and Trichinosis in other localities of Egypt.