Assiut University

Fac. Vet. Med.
Dept. Food Hygiene

OCCURRENCE OF CRYPTOCOCCUS AND CANDIDA SPECIES IN RAW MILK OF DIFFERENT LACTATING ANIMALS

Thesis Presented by

Dina Mohamed Rifaat Abd Elwahab

(B.V. SC. 1994 Assiut University)

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Master Degree in Veterinary Medical Sciences

Under supervision of

Prof. Dr. Nagah Mohamed Saad

Prof. of Milk Hygiene

Fac. Vet. Med., Assiut University

Prof. Dr. Wallaa Farouk Ameen

Prof. of Milk Hygiene

Fac. Vet. Med., Assiut University

Prof. Dr. Hassan Gad Elrab

Emeritus Chief

Researcher of Milk Hygiene Department

Animal Health Research Institute (Sohag branch)

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SUMMARY

Milk under the influence of its high nutritive value it is considered an excellent medium for pathogenic as well as non- pathogenic fungi such as a family of *Cryptococcus and Candida* spp.

A total of two hundred raw milk samples were randomly collected including buffalo and cow (70 samples each) and sheep and goat (30 samples each) from different localities in Sohag city. These samples were examined for the enumeration of total fungi , total count of yeast and total mold in comparison to total fungi count /ml. In addition to the occurrence of *Cryptococcus* and *Candida* spp. the obtained results indicated that average total fungi counts were $1.05X10^5$ for buffalo milk,$1.21\ X10^5$ for cow milk,$1.27\ X10^5$ for sheep milk and $6.40X10^4$ / ml .for goat milk . The percent of total yeast count /ml was 97.14% of total fungi , for buffalo milk ,91.73% for cows milk ,95.27% for sheep milk while ,in goat milk it was 50% of total fungi .

Using the API method revealed, the incidence of *Cryptococcus* and *Candida* spp. were 6 (8.57%) 2(2.8%) ,3(4.28%) for *Cr. neoformans*, *Cr. laurentii* and *Cr. terreus* in *buffalo* milk, however , in cow milk 5 (7.14%) for *Cr. neoformans* . In case *of* Multiplex PCR , it was performed on 10 isolates from buffalo milk and 10 isolates from cow's milk , and the results revealed that buffalo's and cow's milk were contaminated with *Cr. neoformans* with a percent of 30 and 20% , respectively. Concerning *C. albicans* which was previously identified by API, 10 samples of them gave positive results using PCR.

From the current study it was approved that there is a relation between mastitis and incidence of *Cr. neoformans* and *C. albicans*. In buffalo's milk revealed that one sample of positive C. M. T. recorded 100% for both *Cr. neoformans* and *C. albicans*. While, in cow milk 2 samples of C. M. T. recorded 50% *C. albicans* . In sheep and goat there is no relation between mastitis and presence of *Cyptococcus* or *Candida* spp.

The public health hazard of the isolated organisms and the recommended hygienic measures were discussed.