



Assiut University



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

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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  $1.05 \times 10^5$  for buffalo milk,  $1.21 \times 10^5$  for cow milk,  $1.27 \times 10^5$  for sheep milk and  $6.40 \times 10^4$  / 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.