



**The Role Of Some Fungal Species In
Respiratory System Allergy In Workers
Of Mills In Basrah**

A Thesis

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Summary



Summary



This study focused on the isolation and identification of fungi present in flour – mill workers respiratory tract in work places in Basrah city during the period from September 2004 – 2005.

Also the study was performed on some factors which was found in mill environment like: Age, years of service, hours of work, using mask and place of work, studying the relationship between these factors and work related allergy symptoms.

In the same time IgE ELISA test was performed on the mill workers to detect the effects of these factors, which are cited below, on the presence of the work related allergy symptoms.

Ammonia vapor test was also performed to identify the ability of some *A.flavus* isolates to produce aflatoxin and the results are summarized as follows.

Seventy five sputum samples and the same number of throat swab were collected from the respiratory tract of three groups represented Al-Methaq, Al-Basrah flour – mill workers and another persons outside the mill as a control:

-nineteen filamentous fungal species belong to nine genera were isolated, identified, in addition to sterile mycelia and yeasts. Results were also showed that the most dominant fungi

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followed by yeasts, Zygomycotina and at last yeasts – like fungi.

The isolated fungal species revealed variability in their frequency and occurrence percentage, were the most frequent isolated fungi were yeasts.

The survey study showed that runny eyes, irritants, fever, skin rash were affected by Age factor, and that was clear from the significant differences between patients of different age groups.

- The results were also showed that the frequency occurrence of fever, skin rash and loss of appetite were significantly affected by the factor (years of service).
- The results were also performed that there was a relationship between place of work and work related allergy symptoms like sensitization and fever, while no relationship was detected with the other symptoms which was clearly seen from the significant differences between the patients in different place work (inside and outside the place).
- Hours of work were clearly found to affected the frequency occurrence of to bronchial in Asthma and fever symptoms in mill-worker present in a significant differences between patients among hours of works groups.
- Using of mask was found to present effects by the people who used the mask and that show from the significant differences in sensitization, cough, runny eyes, irritants, headache, skin

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rash and Asthma, That was indicted to the role of mask in decay of these symptoms.

- 1- Total Detection of IgE ELISA test was performed on fifty sera samples for workers in mill industry showed that 50% of the worker in this study had allergy on the other hand there was no significant difference between the Age and work related allergy and there was highly significant differences between place of work, years of service, and hours of work with work related allergy symptoms.
- 2- Ammonia vapor test had been done to identify the ability of some *A. flavus* to produce aflatoxins where the color of the media was changed to pink in 40% of the twenty isolates isolates change the color of the media to the pink color and the highest percentage of isolates which gave positive test after one hours of incubation isolate from sputum was 20%, the results performed that the coconuts agar was more suitable from the PDA