

Aeromycoflora of different wards of Lokpriya and Cantt General Hospitals at Meerut

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SUMMARY

A total of 18 genera of fungi belonging to 37 species were isolated from two hospitals. Cantt. general hospital harboured more fungi than the Lokpriya. Trend of dominance of fungi was *Aspergillus* > *Alternaria* > *Cladosporium* = *Curvularia*. Besides hospitals, ward-wise variations in fungi were also observed. Seasonal trend of dominance for Lokpriya and Cantt hospitals was R>S>W and S>W>R. In Private, General (Male & Female), Emergency, O.T. and ICU wards it was S>R>W. Qualitative distribution of fungal genera & species in different wards was as under:-

Hospitals	WARDS											
	Female		Male		Emergency		O.T.		ICU		Private	
Lokpriya	6	15	6	7	6	13	5	8	5	8	9	17
Cantt.	11	16	7	13	9	12	6	11	-	-	8	13

Key words: Aeromycoflora , Hospitals, Wards, Season, Frequency.

Air quality of hospitals has attracted attention as an important health issues (Joshi, 2002). Opportunistic fungi, mycotic contaminants, mycotoxins, allergens, respiratory pathogens and nosocomial infections and their health effects have been studied amongst others by Dillon (1962) Burge (1990), Dales *et al.*, (1991), Miller (1992) Handry and Cole (1993) and Singh *et al.*, (2000), necessitating (1) awareness about hospital sanitation and hygiene (Mauser 1978) and (2) scanning of mycoflora inside the hospital. The present communication, therefore, pertains to the comparative study of different wards of two hospitals under reference.

MATERIALS AND METHODS

The aeromycoflora of different wards of Lokpriya and Cantt. General Hospital were scanned for a year by exposing sterilized petriplates (9 cm diam) in triplicate containing Rosebengal supplemented Sabouraud Dextrose Agar medium and incubating them at 27±1°C for 4-5 days until fungal CFu's appeared. Frequency % of these trapped fungi were calculated per formula earlier described by Singh (1997) & Gola *et al.*, (2005). Standard text books were used for the identification of airborne fungi.

RESULTS AND DISCUSSION

In general, more fungi were isolated from Cantt. hospital than Lokpriya hospital. Different wards of the above two hospitals yielded varying genera and species of fungi. Thus, wardwise and in general, quality and quantum of the aeromycoflora were different. A total of 18 genera of fungi belonging to 37 spp. were isolated from the

two hospitals. Respective figures with respect to wards, seasons and frequencies are being discussed below:

1. Female ward of Lok Priya & Cantt. Hospitals:-

(1) Six genera and 15 spp. were isolated from Lokpriya as against 11 & 16 of Cantt. (2) Fungi exclusive to Lokpriya were *Alternaria tenuis*, *Asp. niger*, *A. unguis*, *A. ustus*, *A. versicolor* and *Stachybotrys* while fungi restricted to Cantt. hospital comprised *Epicoccum purpureescens*, *Fusariella sp.*, *Penicillium capsulatum* & *Sporobolomyces*. (3) General trends with respect to seasons in these hospitals were: Lokpriya R>S>W & Cantt. S>W>R (4) *Aspergillus*>*Alternaria*>*Cladosporium* and *Curvularia* were the dominant fungi in both the cases. *Aspergillus* was represented by 12 spp. (5) *Cladosporium* and *Alternaria* were dominant in summers and early rainy season. while *Aspergillus* was predominant in late rainy season and early winters (6) Seasonwise and frequencywise distribution of fungi in female wards of the two hospitals was as follows: (7) *Alt alternata*, *A. flavus*, *Rhizopus* were common to both the hospitals.

2. Male ward of Lokpriya and Cantt. Hospitals:

(1) Lok Priya was represented by 6 genera & 7 species while increased number of 7 genera & 13 species was observed in Cantt. hospital. (2) Fungi exclusive to Lok Priya included *Alternaria alternata*, *Candida albicans* and *Curvularia geniculata* while fungi exclusive to Cantt. hospital were *Alternaria densii*, *A. triticina*, *Aspergillus candidus*, *A. clavatus*, *A. versicolor*, *Epi coccum species*, *Geotrichum candidum* and *Sepedonium*. (3) Trend of

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