



THE BURDEN OF FUNGAL DISEASES IN ALGERIA

M CHEKIRI-TALBI¹ and D DENNING²



1:Parasitology-mycology professor,Blida university– Pharmacy department-Algeria

2: David W. Denning The University of Manchester

in association with the LIFE program [<http://life-worldwide.org>]

Corresponding author : Mey Chekiri-Talbi

E-mail :mchekiri@gmail.com



INTRODUCTION

- ALGERIA is the largest country in Africa. It had 39,5 million inhabitants in January 2015 and a forecast growth of >2% based on population since 2013.
- Although advanced health surveillance systems are used in Algeria there have been no nation wide data of fungal diseases in this country.
- This is the first study of the burden of serious fungal diseases in Algeria.

RESULTS AND DISCUSSION:

- In Algeria males represent 50,62% of the population, 28% were under 15 years, and 16.4% were over 50 years. There are about 50,000 new cases of cancer every year among including 1500 in children, and about 200 new cases of leukaemia annually .For HIV 6,472 patients are seropositive and 1422 patients have AIDS (see Table below).
- In 2012, there were 8,753 survivors of pulmonary TB, an estimated 317,762 patients with COPD of whom 20.3% were estimated to be admitted to hospital each year. Prevalence for asthma is between 4 to 6% of the adult population and 8 to 10 % of children have asthma.

CONCLUSION

- Probably **at least 1.34% of Algerians** have a serious fungal infection each year. This is dominated by recurrent vaginal candidiasis and allergic fungal disease as a complication asthma. Not counted here are the most frequent superficial mycoses. Invasive mycoses are dominated by aspergillosis and candidosis.

METHODS

- We searched for existing data and estimated the incidence and prevalence of fungal diseases based on the population at risk and available epidemiological data.
- Demographic data were derived from the Service (Office) of the Statistics (ONES), World Health Organization (WHO), The Joint Nations Programme on HIV/AIDS (UNAIDS) and national published reports.
- When no data existed, risk populations were used to estimate frequencies of fungal infections, using described methodology by LIFE.

RESULTS AND DISCUSSION :

- The incidence of invasive aspergillosis in the neutropenic patient in the center of the country is about 8%, while candidaemia occurs in 5% dominated by *Candida albicans*, *Candida parapsilosis* and *Candida glabrata*. Cryptococcosis is less frequent - we count 50 cases / year and pneumocystosis 30 cases annually.
- Concerning the superficial mycoses, tinea capitis is by far the most infection which is culture positive, with the pathogenic agents *Microsporum canis* and *Trichophyton mentagrophytes* being common; favus has almost disappeared. We noticed that *Trichophyton rubrum*, *Trichophyton interdigitale* and finally *Trichophyton violaceum* are the most commonly incriminated species in tinea pedis and epidermatophyties. About ten cases of sporotrichosis have been identified nationally since 1999.

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Infection	Number of infections per underlying disorder /year					Total	Rate
	None	HIV/AIDS	Respiratory	Cancer/Tx	ICU	burden	/100 K
Oesophageal candidiasis	-	1,508	-	-	-	1,508	3.8
Candidaemia	-	-	-	1,383	593	1,975	5.0
Recurrent vaginal candidiasis >4/times/year	474,379	-	-	-	-	474,379	2402
Allergic bronchopulmonary aspergillosis (ABPA)	-	-	20,192	-	-	20,192	51
Severe asthma with fungal sensitisation (SAFS)	-	-	26,654	-	-	26,654	67
Chronic pulmonary aspergillosis (CPA)	-	-	3,642	-	-	3.642	9.2
Invasive aspergillosis	-	-	-	238	434	672	1.7
Mucormycosis	-	-	-	79	-	79	0.2
Cryptococcal meningitis	-	34	-	16	-	50	0.13
Pneumocystis pneumonia	-	115	-	-	-	115	0.3
Total burden estimated	474,379	150,508	50,488	334,383	1027	529,266	5,29