S68  A Global Survey Yeast Susceptibility to Fluconazole

J.M. Torres-Rodriguez, G. Quintido. 1, Grupo de Recerca en Micologia Experimental y Clinica, IMIM/Universitat Autonoma de Barcelona, Spain, 2 Dept. Mycology Fac. Medicine, Euskadi University, Bilbao, Spain

Fluconazole is currently the azole antifungal drug most used for the treatment of yeast infections because of its high rate of efficacy, low toxicity and simplicity of administration. As a result of the wide use of fluconazole, particularly as prophylaxis and treatment of oropharyngeal candidosis in HIV-infected patients, changes in the susceptibility of some strains of Candida albicans and the emergence of other species less susceptible in vitro such as Candida krusei and Torulopsis (Candida) glabrata have occurred. The significance of these effects on the course of the disease is controversial.

Studies of susceptibility to Fluconazole have been published by many laboratories in several countries, most of them from the USA. In general terms the results seem to be similar but there are differences in methodology and procedure.

In a multicentre survey of in vitro antifungal resistance in yeasts of medical importance isolated from Spanish patients, the susceptibility to fluconazole was 90.2%; only 4% of C. albicans strains were susceptible. Most resistance was seen in C. glabrata and C. guilliermondii. All C. tropicalis were susceptible to fluconazole. Conclusions of this study were that resistance to antifungals is very low in Spain and it is related to a few non-albicans species.

Glauser et al conducted a multicentre study in 23 different countries with 2251 consecutively isolated Candida strains in which a fluconazole diffusion assay was performed. The results of this study showed the 97.1% of C. albicans strains were susceptible to this antifungal. When other species of Candida were studied the susceptibility was lower (83.4%). The results of the diffusion test correlated with MICs (NCCLS proposals) for susceptible or intermediate strains when the zones of inhibition were 18-25 mm.

These results suggested a low in vitro world-wide resistance of Candida albicans to fluconazole and variable susceptibility depending on the other Candida species considered.

Recent advances in HIV pathogenesis

S69  Immunologic and Virologic Factors During Primary Infections: Modulation of the Clinical Course and Therapeutic Implications

G. Pantaleo. CH

No abstract available.

S70  T cell dynamics in HIV-1 infections studied by telomere length and CD4+ T cell repopulation kinetics following anti-viral therapy


In a group of 14 HIV-infected persons, mean loss of telomere length in PBMC over 3 to 9 years was significantly increased compared to mean loss of TRF length in 7 healthy controls. Loss of telomere length in HIV infection was found exclusively in CD8+ T cells and not in CD4+ T cells. Loss of telomere length could not be explained by differential telomerase activity. This provides evidence that turnover in the course of HIV-1 infection can be increased considerably in CD8+ T cells, but not in CD4+ T cells. This implies that CD4+ T cell decline in HIV-1 infection might be caused by inhibition of CD4+ T cell renewal. To further study T cell renewal capacity and kinetics we evaluated the repopulation of CD4+ and CD8+ T cell subsets and their functional improvement during the first 36 weeks of treatment with ritonavir, 3TC and zidovudine that induced a strong and persistent reduction of the plasma and lymphoid viral load. A strikingly distinct kinetics for CD4+ CD45RO+ and RA+ cells was observed. CD45RO+ cell repopulation followed a bimodal pattern, with a steep increase in the first 5 weeks and a gradual slow increase the following months. In contrast, the naive CD62L+ cells over the follow up period showed a slow and gradual increase with a mean increase of 10^6 cells per day. In addition, a sustained improvement of T cell function was seen in the patients. Our results demonstrate that immunoreconstitution following anti-viral therapy may be slow and may not readily reach normal levels of immunocompetence.

S71  The Impact of potent antiretroviral treatment on viral burden and immune depletion in lymphatic tissues

A.T. Haase. Department of Microbiology, University of Minnesota, Minneapolis, MN, USA

Quantitative image analysis of sections of lymphatic tissues (LT) after in situ hybridization to reveal viral RNA, or immunohistochemistry to identify subsets of CD4+ T cells affords new opportunities to understand the pathogenesis of infection and response to treatment.

I will describe the results of recent experiments on the response to combinations of antiretroviral therapy in LT that define the kinetics and magnitude of this response. I will also describe the rate of CD4+ T cell replacement that suggests a "Red Queen" mechanism of immune depletion in HIV-1 infection.

S72 Rationale for Immuno-Based Therapeutic Intervention in Combination with Antiviral Agents

H.C. Lane. USA

No abstract available.

Antibiotic resistance in otitis media: Clinical problem or hypothetical risk?

S73 Otitis Media: Pathogenesis and Medical Sequelae

M.J. Tarlow. UK

No abstract available.

S74 Choosing the Antibiotic – Pharmacodynamics

W.A. Craig. USA

No abstract available.