Infection in AIDS

INFECTION WITH HUMAN IMMUNODEFICIENCY VIRUS type-1 (HIV-1) is associated with a wide spectrum of secondary infections. It is only through a concerted approach by microbiologists with expertise involving many different organisms that we can hope to control the secondary infections associated with HIV-1 infection and to prolong life until effective means for controlling the primary infection are available.

The Infection and Immunity Section of the Canadian Society of Microbiologists held a symposium on infections in acquired immune deficiency syndrome (AIDS) at the annual meeting of the society in Calgary in June 1990, with the objective of encouraging microbiologists unfamiliar with the problems associated with HIV-1 infection to consider expanded research in this important area.

The symposium was chaired by Dr John Gill, and covered a variety of topics related to primary HIV-1 infection and associated secondary infections. Dr Allan Ronald of the Departments of Medicine and Medical Microbiology, University of Manitoba opened the symposium with an overview of the epidemiology of HIV-1 infection, with a special emphasis on heterosexual transmission. Dr Mark Wainberg of the Lady Davis Institute for Medical Research, McGill University, Montreal then discussed selected aspects of the HIV-1 virus, specifically covering the isolation and characterization of variants resistant to currently available antiviral agents. Dr Clyde Crumpacker of Beth Israel Hospital, Harvard Medical School, Boston discussed the significant problems of herpes virus infections in AIDS. Cytomegalovirus

(CMV) is the leading cause of sight-threatening viral infection, and Epstein-Barr virus replication is associated with hairy leukoplakia. He discussed the possibility that CD4+ cells latently infected with HIV-1 could become coinfecting with CMV or human herpes virus 6, leading to activation of HIV-1 replication. Successful treatment of herpes virus infections will require new drugs and strategies, as drug-resistant strains are increasingly selected. Dr Ross Hill of the Department of Medicine, SUNY Health Sciences Center, Brooklyn discussed the reciprocal importance of HIV-1 and *Mycobacterium tuberculosis* infections (TB). The cumulative risk of TB is as high as 20 to 25% in AIDS patients, and nearly one-half of TB patients in certain 'geographic hot spots' are HIV seropositive. He then emphasized the need for additional studies on the impact of atypical mycobacterial infections on the clinical course and survival of AIDS patients, and the current controversy on the merits of specific therapy for these infections. Finally, Dr John Gill of the Department of Microbiology and Infectious Diseases, University of Calgary, discussed the most common associated infection – that due to *Pneumocystis carinii*. He emphasized the acute and prophylactic management of these infections, and stressed the need for the development of better diagnostic methods.

We hope that the following papers resulting from these proceedings will be of interest and stimulate readers from all backgrounds to consider approaching the global problem of HIV-1 infection.

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