Report of the

Fifth Consultative Meeting on *Leishmania*/HIV Coinfection

Addis Ababa, Ethiopia, 20–22 March 2007

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1. Introduction

The first case of leishmaniasis associated with human immunodeficiency virus (HIV) infection was reported in 1985, and the number of reported cases in southern Europe subsequently increased rapidly. Since that time, 35 countries have reported cases of coinfection.

In 1991, in order to achieve a better evaluation of the magnitude of the problem, WHO established a global network of 28 institutions. Initially, the sites involved in the network were predominantly European, reflecting the epidemiological situation at the time. Meetings held in Montpellier (1991), Rome (1994), Minorca (1998) and Catania (2001) documented the spread of *Leishmania*/HIV coinfection and covered topics that included routes of infection, pathogenesis, microbiological aspects, details of diagnosis and treatment, and secondary prophylaxis. Some documents produced by the network were:

- *Report on the Consultative Meeting on Leishmania/HIV coinfection, Rome, 6–7 September 1994*. Geneva, World Health Organization, 1995 (WHO/LEISH/95.35).
- *Leishmania*/HIV coinfection. *Weekly Epidemiological Record*, 1997, 72:49–56.
- Desjeux P. *Leishmania and HIV in gridlock*. Geneva, World Health Organization, 1998 (WHO/CTD/LEISH/98.23).
- Desjeux P et al. *Leishmania/HIV coinfection, south-western Europe 1990–98*. Geneva, World Health Organization, 2000 (WHO/LEISH/2000.42).
- Desjeux P, Alvar J, eds. *Leishmania*/HIV co-infections. *Annals of Tropical Medicine and Parasitology*, 2003, 97(Suppl.1).

After the introduction of antiretroviral therapy (ART) for HIV, the number of coinfected cases reported in European *Leishmania*-endemic countries fell sharply. However, because of the increasing overlap of the two diseases, the problem of coinfection spread to the countries that are the world's major foci of leishmaniasis. The need to update epidemiological information regarding coinfection around the world and to prepare specific guidelines for case management in developing countries led WHO to organize the Fifth Consultative meeting on *Leishmania*/HIV Coinfection, which was held in Addis Ababa, Ethiopia, from 20 to 22 March 2007.

1.1 HIV/AIDS: statistics and features

Statistics for December 2006 show that some 39.5 million people are living with HIV/AIDS, of whom approximately 95% reside in developing countries. Of 4.3 million new HIV infections in 2006, 2.8 million (65%) occurred in sub-Saharan Africa, which continues to be the most severely affected part of the world. In several countries of this region, the impact of HIV has been to reduce adult life expectancy by 50%.

Although lack of access remains a major challenge, the number of people receiving ART in sub-Saharan Africa recently exceeded one million for the first time. Weakness of the health systems has been identified as a key obstacle to expanding treatment, care and preventive services. Ensuring compliance is another important issue: one of the lessons learned is that adherence to long-term therapy is improved by simplifying treatment and treating concurrent infections.

1.2 Leishmaniasis: statistics and features

As recognized in a resolution of the sixtieth World Health Assembly in 2007,[1] leishmaniasis is among the most neglected of the tropical diseases: more than 12 million people are currently infected worldwide, there are 2 million new cases every year (a number that is growing), and 350 million people are considered to be at risk. The disease affects the poorest populations in 88 countries (mostly developing countries). Two basic clinical forms are recognized – cutaneous leishmaniasis (CL), a disfiguring and stigmatizing disease, and visceral leishmaniasis (VL) or kala-azar, which is fatal without treatment.

The visceral form is present in 70 countries. The largest focus of VL is in the south-east Asian region, with an estimated 300 000 cases in 2006. East Africa has approximately 30 000 cases per year, and the third largest focus is in the Americas with 4000 cases reported in 2006. New foci are appearing at an alarming rate, and incidence in east Africa is on the increase. A lack of surveillance systems and the frequency of misdiagnosis (especially confusion with malaria) mean that true incidence is underestimated; failure to diagnose the disease leads to increased case-fatality rates. Post-kala-azar dermal leishmaniasis (PKDL) is a complication of VL, often occurring after apparently successful treatment of kala-azar. It requires a prolonged course of treatment: patients are highly infectious to sandflies and thus form an important component of the infection reservoir, especially in areas where transmission cycles are solely or predominantly anthroponotic.

Cutaneous leishmaniasis is present in at least 82 countries, with an annual estimated incidence of 1.5 million cases worldwide. Several clinical forms are recognized: localized CL, which often heals without treatment, diffuse CL, which is very difficult to treat, and mucosal leishmaniasis, which is the most severe form, producing disfiguring lesions and mutilation of the face.

1.3 *Leishmania*/HIV coinfection: statistics and features

The HIV/AIDS pandemic has modified the natural history of leishmaniasis disease. HIV infection increases the risk of developing VL by a factor of between 100 and 1000 in endemic areas, reduces the likelihood of therapeutic response, and greatly increases the probability of relapse. At the same time, VL promotes clinical progression of HIV disease and the development of AIDS-defining conditions. Because the two diseases target similar immune cells, together they exert a synergistic damaging effect on the cellular immune response. Atypical presentations of leishmaniasis are reported in HIV