Visceral Leishmaniasis and HIV co-infection: current challenges and perspectives

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Introduction

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HIV and Leishmaniasis

**HIV/AIDS**
- 33 million infected
- 2.7 million new cases/year

**Leishmaniasis**
- 12 million infected
- 2 million new cases/year

**VL cases**
- Total: 500,000
  - India: 300,000
  - East Africa: 30,000
  - Brazil: 4,000

**CL cases**
- Total: 1.5 million
Source: WHO
HIV and Visceral Leishmaniasis (VL) co-infection

- HIV increases risk of VL $> 2000 \times$
- VL promotes clinical progression of HIV/AIDS
- Target similar immune cells such as CD4
- Both promote a Th2 response
Experience from Mediterranean countries since the 1990s

Dedicated surveillance network

• Shift in population affected from paediatric to adult: 75% male, IVDU

• Transmission cycle
  zoonotic; anthroponotic: shared needles

• New strains: visceral, cutaneous, new

• Relapse; persistent low CD4 count

• Number of cases decreased after HAART
HIV and VL

- Clinical manifestations similar
  - but: most have CD4 < 200
  - may have more co-morbidity!

- Clinical course different
  - lower cure rates
  - more relapse; sec. prophylaxis
  - more drug toxicity
  - higher mortality
Co-infection of HIV and VL is increasing

- South Asia – India, Nepal: 6%
- S. America – Brazil: 6.5%
- Africa
  - Sudan: 8%
  - Ethiopia: 40%
Risk factors for increasing co-infection rates

- Increasing HIV rates in VL endemic areas
- Migrant workers
- Increasing overlap of HIV and VL endemic areas
- Access to HAART; CD4 cut-off
- Human reservoir
  - parasites in blood
  - relapse cases
  - Para/post Kala-azar Dermal Leishmaniasis more frequent, more severe
HIV and VL: many unresolved issues

- Epidemiology
  - surveillance

- Immunology
  - immune reconstitution

- Therapy
  - what regimen in each area
  - relapses
  - resistance
  - secondary prophylaxis
  - primary prophylaxis
This symposium

- Update on HIV - VL co-infection from several endemic areas:
  - 5 presentations: hospital and field experience

- Open discussion