Kala azar, or visceral leishmaniasis

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overview

1. Why MSF involvement in kala azar
2. Strategy: what, where, why
3. Current situation
4. Future
1. Why MSF involvement in kala azar?

- Deadly epidemic in conflict-affected Southern Sudan
- Contexts of
  - extreme poverty
  - remoteness
  - marginalization
  - conflict

MEDICAL-HUMANITARIAN EMERGENCY
1. Why MSF involvement in kala azar?

- No other actors
- No interest of governments, donors, academia, pharma
- Difficult to diagnose, complex expensive treatment

NEGLECT
Marginalization, also within countries

- Increased exposure
- Increased vulnerability
- Poor access to health care
Neglected Tropical Diseases (NTDs)

Poverty-related infectious diseases

MSF focus

Sleeping sickness
Chagas disease
Kala azar

Schistosomiasis
leprosy
Lymphatic filariasis
Rabies
Buruli ulcer
River blindness

‘worms’
Dengue
Guinea worm

Diarrhoeal diseases

TB

Bacterial pneumonia & meningitis

HIV/AIDS

Malaria
2. Strategy: what did we do and why

Responding to kala azar outbreaks (east-Africa) and contributing to elimination (south-Asia)

To save lives and influence change
MSF History in East Africa: Response to KA outbreaks

- 1989: Western Upper Nile, Southern Sudan
- 1995: Eastern Upper Nile, Southern Sudan
- 1996: Gedaref State, Eastern Sudan
- 1997: North-west Ethiopia
- 2000: Somalia
- 2002: Eastern Upper Nile and North-west Ethiopia
- 2009-2011: Major outbreak response in Jonglei and Upper Nile States in South Sudan
Kala azar treatment centres

Under the trees (South Sudan)
Kala azar treatment centres

Hospital (Humera, Ethiopia)

Field Hospital (Um-el-Kher, eastern Sudan)
Innovation in active case-finding in Bangladesh

Innovation in kala azar treatment
Ambulatory PKDL treatment
Two decades of MSF kala azar treatment

From 1989 until 2011, MSF has treated more than 100,000 patients

- Responding to kala azar outbreaks (Africa) and contributing to elimination (S-Asia)
- Operational research to improve diagnosis, treatment and control
Operational research to improve treatment

• Generic vs. branded drug
  → reduced costs

• 17 day combi vs. 30 days monotherapy
  → better manageable
  → more effective
  → cheaper
  → lower mortality
Operational research to improve treatment

• AmBisome for severe kala azar (risk factor analysis
  → reduce mortality

• Better treatment for HIV-infected pts
  → reduce mortality

S-Asia: AmBisome for PKDL treatment
  → reduce transmission
Operational research to improve diagnosis

• Diagnostic accuracy of rapid diagnostic test (RDT rK39) in field conditions
  → decentralisation

(suboptimal sensitivity in Africa)
Death Rates (1998 – 2007) in primary kala azar

- North Sudan
- South Sudan
- Ethiopia

- Responding to kala azar outbreaks (Africa) and contributing to elimination (S-Asia)
- Operational research to improve diagnosis, treatment and control
- Decentralise, scale up
- Influence policy; WHO and national guidelines
- Help address neglect of populations
2. Strategy: where

**East Africa:** South Sudan (11 sites), Sudan, Ethiopia, Kenya, Somalia, Uganda

**South Asia:** India (Bihar), Bangladesh

In red current KA projects
3. Current situation: south Asia

• Perfect RDT
• Almost perfect treatment (L-AmB)
• Political commitment for elimination on paper (MoU 2005)

Needs political courage to use L-AmB for elimination and vector control (spraying)
3. Current situation: east Africa (1)

• (Same) RDT not perfect; if negative needs other tests
• Treatment still long, toxic and painful
• Drug registration issue
• Access to care outside MSF limited
• Resource-poor
• No elimination perspective
3. Current situation: east Africa (2)

- **HIV/KA** care to improve;
- High-dose combinations
- Prompt ART
- 2\textsuperscript{nd} prophylaxis
4. Future - needs

• Inclusion in Neglected Tropical Diseases funding (a.o. Global Health Initiative)
• Adequate budget prioritization in endemic countries, and inclusion of marginalized groups
• Oral, effective, safe, short-course treatment
• Better diagnostics (antigen-based RDT)
• Vaccine…
• More actors in kala azar. Patient activism
Thank you
Extra slides
2. What is kala azar?

• Visceral leishmaniasis
• Sand fly with *Leishmania* parasite
• Incubation period: few months
• Symptoms: fever, weight loss, enlarged spleen, anemia
• Deadly in weeks-months if untreated
2. What is kala azar – basics 2-

**Usually treatable**: if access to quality early diagnosis and treatment

- **Partly preventable only**: impregnated bed nets

- Role of immune system: protective immunity, HIV infection, relapses
MSF projects in NTDs

- Batangafo (CAR) MSF-OCBA
- WES (South Sudan) MSF-OCBA
- Gedaref (Sudan) MSF-OCG
- Lankien, Leer, Malakal, Nasir, Pagil (South Sudan) MSF-OCA
- Abdurafi (Ethiopia) MSF-OCA
- Mobile HAT Team: Chad, CAR, Congo (+ probably DRC & South Sudan) MSF-OCA
- Tbilissi (Georgia) MSF-OCP
- Bihar (India) MSF-OCBA
- Fulbaria (Bangladesh) MSF-OCA
- Kala azar
- Sleeping sickness
- Chagas disease