Epidemiology of HIV CNS Disease in Sub-Saharan Africa

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References

Adults and children estimated to be living with HIV, 2005

Total: 38.6 (33.4 – 46.0) million
Estimated number of adults and children newly infected with HIV, 2005

Total: 4.1 (3.4 – 6.2) million
HIV prevalence in adults in sub-Saharan Africa, 1990–2005

406 patients with presumed meningitis

- 200 had meningitis
  - 90 Cryptococcal meningitis
  - 32 Tuberculous meningitis
  - 24 pyogenic meningitis
  - 52 mononuclear meningitis
  - 2 other

• 32 patients
  • 17-TB
  • 6-neurocysticercosis
  • 2-Toxo + neuorcyticercosis
  • 7-others

• 26 patients
  • 14-brain abscesses
  • 4-lymphomas
  • 4-toxoplasmosis
  • 1-syphilis
  • 1-cryptococcosis
  • 1-PML
HIV-Associated CNS Disease in SSA

- The commonest described are infective conditions (OIs)
  - Meningitis (cryptococcal, tuberculous, etc)
  - Mass lesions (tuberculomas, absesses, toxoplasmosis-less often lymphomas and PML)
  - Stroke lesions

- Other lesions less commonly described
  - Cognitive dysfunction (dementia, psychological perturbations, etc...)
HIV-Associated CNS Disease in SSA

- Tuberculosis (meningitis, tuberculoma)
- Cryptococcal meningitis
- Toxoplasmosis
- Neurosyphilis
- Primary CNS Lymphoma
- Strokes
- PML
- CMV
- Less on dementia and neuro-psychological disorders
HIV-Associated CNS Disease in SSA

- Limited data
- Diagnoses not often firmly confirmed
  - Limited imaging facilities
  - Limited confirmatory diagnostic capabilities
    - Microbiological, immunological, virologic, serologic, histologic, etc.
  - Paucity of neurologists/physicians managing HIV infected patients in public care settings
    - Hence limited expert opinion on diagnoses
ART and CNS Disease
People in sub-Saharan Africa on antiretroviral treatment as percentage of those in need, 2002–2005

Impact of ART on HIV-Associated CNS Disease in Sub-Saharan Africa

- Largely unknown
- Limited epidemiological data before ART roll-out
- Only few programs (especially research and well-funded programs) are documenting the impact of ART roll-out
- Nonetheless we shall see dramatic changes as more people get onto ART
Conclusions-HIV/AIDS in SSA

- Pre-2000 HIV/AIDS was regarded as a fatal disease
  - Resources were only spent on the most easily and cheaply treatable conditions
    - Easy to diagnose on clinical or simple diagnostic tests
    - Conditions for which drugs could be given empirically for both diagnosis and therapy
    - Therefore only conditions for which drugs were cheap and available
Conclusions-HIV/AIDS in SSA

• With the paradigm shift post Durban (2000)
  • Renewed interest in determining more comprehensive approaches to treating HIV-related conditions and complications (within the parameters of the resources of a particular region/country in SSA)
  • Wide variation in capacities
  • Political and economic upheavals impact greatly on the strength and reach of national programs
Conclusions-HIV/AIDS in SSA

- ART Roll-out is a reality in SSA (increase of patients on ART from 400,000 to 1,600,000 by 2005/6) is indicative of this acceleration in availability of ART
- There is now need to manage HIV-related conditions which have hitherto not been prioritised or recognized which included several HIV-related CNS conditions eg dementia and other cognitive disorders
Conclusions-HIV/AIDS in SSA

- The collation of data generated under both operational and classical research conditions is necessary.
- Research approaches to better understand CNS disease at basic science, biological and psycho-behavioural levels is needed.
Thank you