Southern African HIV Clinicians Society

3rd Biennial Conference

13 - 16 April 2016
Sandton Convention Centre
Johannesburg

Our Issues, Our Drugs, Our Patients

www.sahivsoc.org
www.sahivsoc2016.co.za
Abstract ID: 190

Third-Line Antiretroviral Treatment (ART) in Children with HIV:
Case Reports from a Paediatric Treatment Failure Clinic in Khayelitsha, South Africa

Jonathan Bernheimer¹ - Presenter
Sarah Jane Steel¹ Faith Moyo¹ Clare Japhet¹ Thembisa Makeleni¹
Nompumelelo Mantangana¹ Virginia De Azevedo² Vivian Cox¹,³

1. Medecins Sans Frontieres, Khayelitsha, South Africa
2. City of Cape Town, City Health
3. Center for Infectious Diseases Epidemiology and Research, University of Cape Town
Background:

- HIV treatment failure rates in children high in studies:
  - IeDEA Study*: 19.3% after 3 years of treatment
  - Ubuntu Clinic in Khayelitsha, South Africa failure rate almost 30%

Background:

- July 2013: MSF started the Paediatric Risk of Treatment Failure clinic in Khayelitsha, South Africa
  - 0-19 year old children failing ART
  - Addresses adherence issues to promote re-suppression

- Tools used:
  - Individual counseling
  - Support groups / Adolescent “Teen” clubs
  - Home visits

- Most children have re-suppressed their viral load:
  - Of those in clinic for at least 6 months, 89/114 (74%) have re-suppressed

- 4/72 (5%) of those enrolled on protease inhibitors have shown resistance necessitating 3rd line ART
Methods:

3 months standard adherence counseling by nurse

Persistent VL > 1000 HIV copies/ml

Genotype shows resistance to lopinavir/ritonavir

Switch to third line regimen after adherence addressed

Ongoing adherence counseling/ Obtain VL every 3 months
Results:

72 patients enrolled on PI-Based regimens

44 (61%) re-suppressed with 3 months adherence support

28 (39%) not suppressed

14/28 (50%) received genotypes

14/28 (50%) no genotype obtained (lost from care, transfer, VL improved but still >400)

4/14 (28%) resistance to lopinavir/ritonavir (resistance scoring range 30-115)

4/72 patients (5%) started on 3rd line ART
Results (continued):

• Data of Patients on 3rd line ART:
  
  • Mean age 6.64 years
  
  • 4/4 (100%) with a history of TB
  
  • Mean time on 3TC monotherapy before starting 3rd line ART: 23.2 months (range 7-47 months)
  
  • Mean decline in CD4 count from start of 3TC monotherapy to start of 3rd Line ART: 35.5% (range 21% - 48%)
Results (continued):

• 3rd Line Regimens based on genotype results:
  • 2/4 started on darunavir/ritonavir/raltegravir/3TC/AZT
  • 2/4 started on darunavir/ritonavir/3TC/AZT

• Viral load results:
  • 4/4 VL <400 copies/ml around 3 months after starting
  • 3/4 VL <400 copies/ml around 6 months after starting
    (4th patient VL 418)

• No side effects or adverse clinical developments reported

• No adherence problems reported
Conclusions:

• Lopinavir/ritonavir regimens are robust
  • Few patients develop resistance despite prolonged viremia

• Excellent and rapid efficacy of darunavir/r and raltegravir

• No side effects reported with 3rd line regimens.

• Thorough adherence counseling necessary for 3rd line ART initiation and maintenance.

• It is possible to identify PI-resistant children and to start them successfully on 3rd line ART at PHC level!

• Administration of 3rd line ART is complex!
  • Urgent need for less complex, more tolerable paediatric drug formulations and regimens
Thanks!

Questions?

Acknowledgements:
Western Cape Department of Health
City of Cape Town – City Health,
Mark Cotton
Helena Rabie
Lisa Frigati
Leon Levine
James Nuttall
Nombasa Dumile
Pumeza Runeyi