Short-term safety profile of Atazanavir-ritonavir based second-line therapy among HIV infected adults in Zambia

Mpande Mukumbwa-Mwenechanya [1]

Mwango Albert, [2] Aggrey Mweemba,[3] Patrick Musonda,[1,4] Ben Andrews,[5,6] Gilles Wandeler,[7,8] Carolyn Bolton,[1,9] Izukanji Sikazwe,[1] Longwani Muungo, [5] Pierre Yassa, [3] Enock Chikatula,[3] Chikuta Mbewe,[2] Lottie Hachambwa,[5,10] Michael Vinikoor,[1,9] Nason Lambwe,[3,5] Benjamin Chi,[1,9] Shabir Lakhi,[4,5] and Lloyd Mulenga,[1,3,5]

[1]Centre for Infectious Disease Research in Zambia, Lusaka, Zambia [2]Ministry of Health, Ndeke House, Lusaka, Zambia [3]University Teaching Hospital, Lusaka, Zambia [4]University of East Anglia, United Kingdom [5]University of Zambia, School of Medicine, Lusaka, Zambia [6]Vanderbilt University, Nashville, USA [7]University Hospital Bern, Bern, Switzerland [8]Institute of Social and Preventive Medicine, University of Bern, Switzerland [9]University of North Carolina at Chapel Hill, Chapel Hill, USA [10]University of Maryland, Baltimore, USA

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BACKGROUND

- WHO recommend Atazanavir/ritonavir (ATV-r)
- In 2013 , Zambia HIV program introduced ATV-r
- Currently sparse data on safety and tolerability

METHODS

- Reviewed charts of all patients on ATV-r in Zambia
- Patients who initiated from Nov 2012 to February 2014.
- All patients were from the University Teaching Hospital Adult Infectious Diseases Centre Clinic

METHODS

- We evaluated Clinical and Laboratory events and focused on these areas
  - Clinical events
    - Abdominal Pains, Dizziness, Diarrhea, Yellow Eyes and Weakness
  - Lab events
    - Elevated
      - Bilirubin, lipids and transaminases

ANALYSIS

- Associations were assessed using the logistic regression model
  - Risk of development of hyperbilirubinaemia assessed according to age, sex and transaminases

RESULTS: BASELINE CHARACTERISTICS

- Total of 160 patients were on ATV-r,
- 103 adults were available for analysis
- Included patients with documented bilirubin, lipids and ALT
- Stratified onto 2 groups
  - 44 No prior exposure to LPV/r
  - 59 Prior exposure to LPV/r and switched due to suspected LPV/r related side-effects

CHARACTERISTICS BY ATV-r EXPOSURE

Characteristic	No Prior LPV-r Exposure N=44	Prior LPV-r Exposure N=59	P-Value
Age, year, median (IQR)	41 (35,50)	44 (38, 53)	0.28
Time (months) on ATV-r	7 (6, 9)	8 (6, 11)	0.40
Duration on previous ART regimen (months)	24 (12, 36)	24 (12, 38)	0.87
Gender (Male)	18 (40.9%)	19 (32.2%)	0.36

CHARACTERISTICS BY EVENT

Characteristic	No Prior LPV-r Exposure N=44	Prior LPV-r Exposure N=59
No Clinical Event	39 (88.6%)	51 (86.4%)
Clinical Event		
Abdominal pains	0 (0%)	2 (3.4 %)
Diarrhea	0 (0%)	1 (1.7%)
Dizziness	0 (0%)	1 (1.7%)
Yellow eyes	5 (11.4%)	3 (5.1%)
Weakness	0 (0%)	1 (1.7%)
No Lab Event	36 (81.8%)	45 (76.3%)
Lab Event		
CrCL<50/mL	0 (0%)	1 (1.7%)
Bilirubin >17	8 (18.2%)	11 (18.6%)
Lipid > 5.8	0 (0%)	1 (1.7%)
Transaminase (ALT/AST) > 80	0 (0%)	1 (1.7%)

Persistance of Symptoms After Switch

Persistance of Symptoms After switch	No Prior LPV/r Exposure	Prior LPV/r Exposure
No	1 (2.3%)	37 (62.7%)
Yes	0 (0%)	22 (37.3%)

ASSOCIATED CHARACTERISTICS WITH HYPERBILIRUBINAEMIA ATV-r EXPOSURE

Characteristic	Hazard Ratio	95% Confidence Interval
Age	1.02	0.98,1.06
Gender	0.82	0.31,2.14
Elevated Transaminases	0.92	0.41,1.87

LIMITATIONS

- Chart review
  - Unable to explore the impact of adverse events on patients
  - Unable to rule out comorbidities
- Small sample size
- No virologic outcomes

CONCLUSION

- ATV-r based regimen appeared to be well-tolerated
- Hyperbilirubinaemia most frequently observed adverse event
  - led to no discontinuation of ATV-r
- Long term observation needed
- Direct comparisons with other PI-based combinations are urgent

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