Management of HIV virological failure in an associative medical facility in Burundi (OPP-ERA project).

WEPEB082

Breton G[1,2], Karemera F[3], Ruiz M[1], Gakima D[4], Ndayikengurukiye C[4], Guichet E[1], Dubois-Cauwelaert N[1], Karemangingo S[3], Sylla O[5], Nimbona P[4] and the OPP-ERA study group.
[1]SOLTHIS, Paris, France; [2]Pitié-Salpêtrière Hospital, Infectious and Tropical Diseases, Paris, France; [3]PNLS/IST, Bujumbura, Burundi;
[4]Association Nationale de Soutien aux Séropositifs, Bujumbura, Burundi, [5]Sidaction, Paris, France

BACKGROUND

Since 2013, WHO recommends HIV viral load testing (VLT) as the preferred marker to monitor efficacy of antiretroviral therapy (ART). In case of virological failure (VL>1000 cp/mL), national and international guideline recommend adherence intervention and a VL control within 3 to 6 months and 2nd line treatment in case of confirmed failure.

The OPP-ERA project implemented HIV viral load (VL) on open platforms in Burundi. More than 45.000 VL tests were performed from 2014 and 2019, documenting a virological success (CV<1000 cp/mL) in 90% of patients. However, the management of virological failure remain a challenge (see Poster WEPE081)

Funded by UNITAID, the OPP-ERA project aims at increasing access to low-cost VL monitoring through access to Open Polyvalent Platforms (OPPs). The OPP-ERA project, started in 2013, was implemented in 4 countries (Burundi, Cameroon, Guinea and Ivory Coast) by the consortium of actors of the fight against HIV and AIDS: Solthis, Expertise France, Sidaction and ANRS. In Burundi, one OPP was implemented in the ANSS (Association Nationale de Soutien au Séropositifs), an associative health facility in Bujumbura.

METHODS

In order to describe the management of patients who experimented virological failure and the factors associated with 2nde line ART initiation, we conducted a retrospective survey of patients followed in the ANSS Turiho center with at least one VL>1000 cp/mL in the first 6 months of 2018 from the OPP-ERA laboratory database. Confirmed virological failure was defined as at least 2 consecutive VL≥1000 cp/mL. Data were collected from medical charts. A survey of prescriber's VL knowledge was performed in June 2019.

RESULTS

Confirmed virological failure was identified in 45 pts, 33 adults and 12 infants/adolescents. The median duration of ART was 7,6 years, 10 were already on 2nd line. At the time of the survey: two patients have died, one was lost to follow-up, 3 have further VL<1000 cp/mL without ART modification, one was switched to 2nd line after a single VL≥1000 cp/mL. Patients on 2nde line ART were not considered because of the non availability of 3rd line ART regimen at the time of the study. Among the 29 remaining patients on 1st line retained in care at time of the survey, 11 (38%) have benefited from 2nd line ART initiation (table).
The knowledge survey included 23 participants, 74% of them had a good knowledge of VL. However the 1000 cp/mL threshold was respected by only 22% of them for a clinical case with a decrease in VL after adherence intervention (p<0,01).

	Patients who initiated 2nd line ART regimen N=11	Patients who remained on 1st line ART regimen N=18	p
Patients characteristics			
Age <18 years-old N(%)	6 (55%)	2 (11%)	0.03
Female N(%)	6 (55%)	10 (55%)	ns
Duration of 1st line ART (years), median (EIQ)	7(3.6-11,1)	6 (3.6-9.8)	ns
Quality of viral load access and monitoring			
Total number of VL measure from the initiation of ART, median (EIQ)	5 (3.5-6)	5 (4-6)	ns
Turn around time VL results (days), median (EIQ)	11.5 (7-17)	12 (7-17)	ns
Result of VL≥1000 copies/ml notified in the medical chart, N(%)	32/38 (84%)	48/61 (78%)	ns
Adherence intervention notified in the medical chart, N(%)	28/38 (74%)	39/61 (64%)	ns
Viral load results			
N (%) pts with at least one VL<1000 copies/ml in their VL history, median (EIQ)	5 (45%)	11 (61%)	ns
Value of all VL (including VL<1000 copies/ml), median Log_{10} cp/mL (EIQ)	4.86 (4-5.4)	3.88 (0-5.4)	0,001
Value of the two last VL (copies/ml), median Log_{10} cp/mL (EIQ)	5,3 (4.54-5.56)	4.41 (3.55-5.14)	0.04
Duration of viral replication (nb of days after the 1st VL≥1000 copies/ml to date of switch or date of medical chart evaluation), median (EIQ)	499 (400-537)	478 (248-608)	ns
Number of unnecessary VL control according to VL algorithm, median (EIQ)	1 (1-2)	1 (0-2)	ns

CONCLUSION

Despite regular access to the VL, with a short turnaround for VL result, the absence of 2nd line shortage, access to adherence intervention and a good completeness of medical records, only a third of pts with VF benefited from a switch to 2nd line, at a late stage. Switch is more frequent in infants and adolescent and in case of high VL in accordance with the low compliance with the 1000 cp/mL threshold documented in the knowledge survey. Significant capacity building of caregivers seems necessary to improve failure management.
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OPP-ERA study group: Kouamé ABO, Catherine ADOU, Jean Claude AGAMAN, Mathias AKA, Jean Jacques AKAMBA, Adrien ALLORANT, Alexandra ASCORRA, Samuel ASSANDE, Jeanne D'Arc ASSEMIEN, Aristide ATEBA OTTO, Lucien AYEMOU, Hamadou BA, Guillaume BADO, Amadou BAH, Housseini BAH, Saliou BAH, Zackaria BAH, Gérard BAHAMINYAKAMWE, Hallasane BALDE, Jean-Marie BALLA, Adama BARRY, Alpha Oumar BARRY, Instissar BEL HADJ, Mélisande BERGEON, Elie BIDIERO ZOTI, Anthony BILLAUD, Hadjia BINTA, Anne-Cécile BISSEK ZOUNG KANY, Juste BLIDIEU, Aurélie BONFILS, Pascal BONIMY, Léonard BONONO, Joëlle BOUBA HAMAN, Christelle BOULANGER, Guillaume BRETON, Popol BURUME, Ansoumane CAMARA, Robert CAMARA, Sylla CAMARA, Yalikhatou CAMARA, Elisabeth CARNIEL, Mathilde CASABONNE-MASONNAVE, Juan CEPEDA, Adama CISSE, Amadou CISSE, Mohammed CISSE, Daouda CONTE, Benjamin CORIAT, André COULIBALY, Cristina D'ALMEIDA, Pé DAMEY, Louis DEWEERDT, Mandiou DIAKITE, Ibrahima DIALLO, Karidiatou DIALLO, Mouslihou DIALLO, Penda DIALLO, Nestor DION, Rina DJUBANG, Rachel DOMENACH, Samuel DOUKOU, Jacques DOUMBE, Natasha DUBOIS CAUWELAERT, Larissa DUSHIME, Jacques EDI, Serge EHOLIE, Eboi EHUI, Jean Bosco ELAT, Alain Georges ETOUNDI MBALLA, Bertrand EYOUM BILLE, Danielle Octavie FAK MOAKONG, Eric FLEUTELOT, Pierre FOUDA, Dévote GAKIMA, Jeanne GAPIYA, Ella Fleure GBALE, Audrey GIRET, David GLOHI, Pythagore GUEPJOP, Emilande GUICHET, Hugues GUIDIGBI, Formo GUILAVOGUI, Michel HAKIZIMANA, Lisa Peiching HUANG, Angéline INAMAHORO, André INWOLEY, Jasmine IRAKOZE, Aurélie JOUSSET, Samuel KABORE, Caritas KAMIKAZI, Saïdi KAREMANGINGO, Francine KAREMERA, Emmanuel KEGNE, Ahmed Sékou KEITA, Adama KEITA, Youssouf KOITA, Pascal KOIVOGUI, Romuald KONAN, Kansire KONDE, Pierre KONDIANO, Fatoumata KONE, Kané KONE, Jean-Baptiste KOTTAN, Mathurin KOUADJALE, Charles KOUANFACK, Sinata KOULLA SHIRO, Djeli Sira KOUYATE, Mariama Ciré KOUYATE, Emilio LUMIA, Anne LUTUN, Ousmanou LYLI, Yoann MADEC, Emmanuel MAINA, Laurent MALATO, André MAMA FOUDA, Malachie MANAOUDA, Olivia MARC, Jean Marie MASUMBUKU, Madeleine MBANGUE, Emmanuel MBONGKO FAI, Maelle MEGOUE, Martin MEKONGTCHOU, Hervé MENAN, Eugène MESSOU, Jeanne Mauricette MVONDO, Célénie NAMAHORO, Pontien NDABASHINZE, Jacques NDAWINZ, Callixte NDAYIKENGURUKIYE, Claire NDAYIKENGURUKIYE, Aimé NDAYIZEYE, Josette NDIKUMANA, Ildéphonse NDUWAYO, Jacques NDUWIMANA, Eric NERRIENET, Marinette NGO NEMB, Grâce NGONDI, Laure NGONO, Huguette Claire NGUELE MEKE, Pélagie NIMBONA, Talla NIOKE, Désiré NISUBIRE, Louis Richard NJOCK, Gisèle NKE, Raphael NONO, Aristide NORRIS, Cécile NOUBOUE, Pascaline NOUMO, David NSHIMIRIMANA, Giséle NYAMSI YAKA, Joseph NYANDWI, Anicet NYAWAKIRA, Émilie ONG, Kolié OUO OUO, Sophie OUVRARD, Steve OYIE, Elisabeth PEDOUM, Antoine PEIGNEY, Ida PENDA, Louis PIZARRO, Claire REKACEWICZ, Hélène ROGER, Jeanne ROUSSEL, Christine ROUZIOUX, Magali RUIZ, Georges RUKUBO , Noëlla RURIHOSE, Patricia RWIMO, Frédéric SAMBA, Maurice SANDOUNO, Moriba SANE, Moussa SANGARE, Issaka SONDE, Mohammed SOUMA, Hadja Aminata SOUMAORO, Mamadou Saliou SOW, M'Mah SYLLA, Olivia SYLLA, Paul-Alain TAGNOUOKAM, Raphael TAPONDJOU, Florence THUNE, Tamba Kallas TONGUINO, Thomas TONI, Tierno Mamadou TOUNKARA, Mafoudia TOURE, Abdoulaye TRAORE, Edouard TUAILLON, Roland TUBIANA, Déli VANDI, Marguerite Sylvie WOUATEDEM, Nadia YAKHELEF, Delongi YAPO, Tigui Franck YAZI, Isabelle ZANGRE, Florence ZEH KAKANOU, Edouard ZIBI

Author contact
guillaume.breton@solthis.org