What is the current place for protease inhibitors in people living with HIV? A retrospective single-center study

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Introduction

Protease inhibitors (PIs) have been at the origin of highly active antiretroviral therapy. Their metabolic side effects and the development of new drugs relegated them to second-line treatments.

Patients and methods

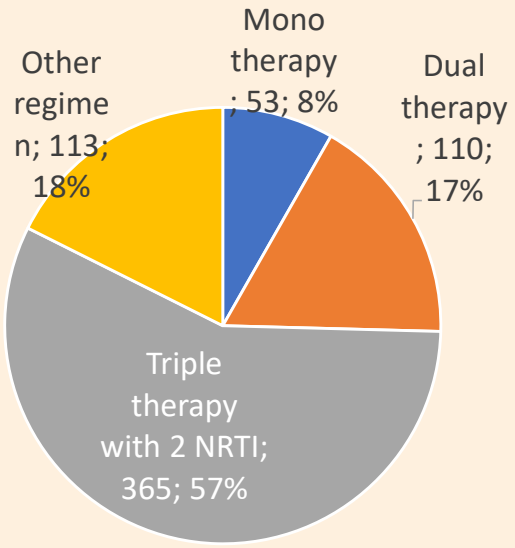
We conducted a retrospective monocentric study in a regional reference center. All people living with HIV (PLWHIV) who received PIs for at least 1 year between January 2013 and December 2023 were included. Patients who did not benefit from a follow-up from 2022 (except for death) were excluded.

Results

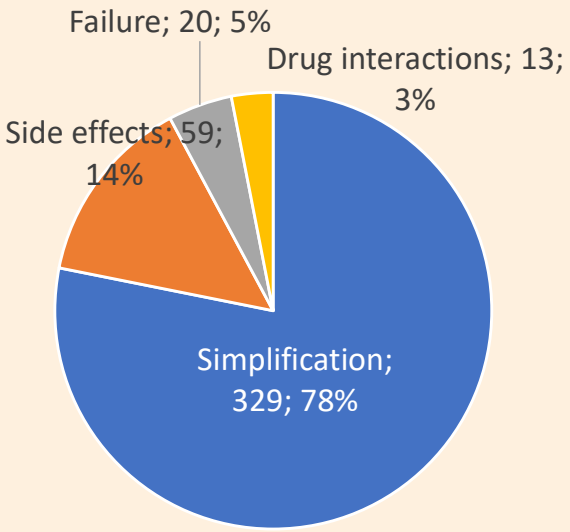
Among 3607 people living with HIV (PLWHIV), **641 received PIs for at least a year**

PI modality prescription: within RTNI combination 78% for a median duration of 3 years

	Pursued PI (172,27%)	Stopped PI (469,73%)	*p*-value
Age (median, IQR)	46 (16)	44 (17)	0,3
Sex (Male %)	99 (58%)	306 (65%)	0,074
Heterosexual (n,%)	90 (52%)	233 (50%)	0,6
Hypertension (n,%)	**11 (6%)**	**61 (13%)**	**0,02**
French origin	89 (52%)	246 (52%)	0,9
Sub-saharan Africa origin	46 (27%)	148(32%)	0,2
HBV co-infection	7 (4%)	25 (5%)	0,5
Dyslipidaemia (n,%)	7 (4%)	34 (7%)	0,1
CD4 cell-count (median, IQR)	559	628	0,02
>200 copies/mL (n,%)	**28 (17%)**	**13 (3%)**	**<0,001**
Genotypic mutation prior PI (n,%)	**143 (83%)**	**346 (76%)**	**0,014**
Genotypic mutation after PI (n,%)	52 (30%)	158 (34%)	0,4
Death during	**15 (9%)**	**11 (2%)**	**<0,001**



Modality of prescription



Causes of PI cessation

Conclusion

Our study reveals that the long-term retention of PI currently affects a small proportion of PLWHIV. Factors associated with the maintenance of PIs were the presence of mutations at the time of PI initiation and a higher viral load during follow-up.