

Therapeutic switch to long acting cabotegravir/rilpivirine to overcome malabsorption due to ulcerative colitis in a person living with HIV, a case report

F. Sabaini 1,2; G. Pozza 1,2; A. Giacomelli 1,2; C. Fusetti 1,3; S. Antinori 1,2

1 Department of Biomedical and Clinical Sciences, Università degli Studi di Milano, Italy.

2 III Division of Infectious Diseases, ASST Fatebenefratelli Sacco, Luigi Sacco Hospital, Milano, Italy.

3 II Division of Infectious Diseases, ASST Fatebenefratelli Sacco, Luigi Sacco Hospital, Milano, Italy.

Background

- Long acting cabotegravir/rilpivirine, through intramuscular administration, may be a solution to malabsorption in people living with HIV with IBD.

Case Presentation

- A 76 year old woman, living with HIV since 1993, has a long history of ARV therapy and multiple resistances (as shown in table 1 and table 2).
- Her clinical history also includes: ulcerative colitis (that was first diagnosed in 1969 and for which multiple surgical operations were performed through the years, starting with proctocolectomy and ileal pouch anastomosis, until an ileostomy was finally performed in 2023), previous pulmonary tuberculosis, hypercholesterolemia, osteoporosis, thyroid nodules, cataract, venous insufficiency.
- She is allergic to miconazole, amoxicillin and efavirenz (rash).
- Her other medications are: cholecalciferol, denosumab, acetylsalicylic acid.
- After the ileostomy was performed, she reported seeing her oral ARV (DRV/c/TAF/FTC) almost completely undigested in her stoma pouch. Therefore, even though the viral load was still undetectable, her clinicians at the time (March 2023), after revising her history, decided to switch her ARV therapy from oral to intramuscular, with cabotegravir/rilpivirine.
- For the following year, there were no adverse reactions and the viral load remained undetectable, until March 2024, when her blood test showed detectable HIV-RNA (111 copies/ml), apparently without any simple explanation (the patient always kept her appointments and there were no signs of concomitant infections, she hadn't received any vaccination recently and no interactions with other medications were documented). No further measures were taken and the following test in April 2024 showed undetectable viral load.

Discussion

- A switch to long acting cabotegravir/rilpivirine proved a successful strategy in this case. Nonetheless, there were some concerns about this choice. First of all, the malabsorption was only referred by the patient and there were no evidence of inefficacy of her ARV in her blood test. Moreover, even though there were no evidence of mutations conferring resistance to NNRTIs, the clinical history included a rash caused by efavirenz, which naturally lead to the abrupt discontinuation of such medication; EFV is known for its long half-life, which may have caused suboptimal plasma concentrations following its stop and, subsequently, resistances to NNRTI.

Conclusions

- This case report shows how long acting CAB/RPV might be a solution to malabsorption in people living with HIV facing inflammatory bowel disease and its complications. Nevertheless, as clinicians, we must always be extremely cautious and consider all the variables (clinical history, previous resistance tests, co-medications, co-infections, adherence) before making a decision.

ARV	Start date	Stop date	Reason (taken from medical records)
AZT	01/10/1993	01/09/1995	Unspecified
AZT+3TC	01/09/1995	01/04/1996	Unspecified
d4T+3TC+IDV	01/04/1996	01/06/1998	Kidney stones
AZT+3TC+SQV/r	01/06/1998	01/02/1999	Unspecified
AZT+3TC+EFV	01/02/1999	01/10/1999	Rash (by EFV)
AZT+3TC+SQV/r	01/10/1999	30/10/1999	Lipodystrophy
AZT+3TC+ABC	30/10/1999	01/01/2000	Virological failure
d4T+3TC+SQV/r	01/01/2000	01/02/2000	Resistance to 3TC
d4T+DDI+SQV/r	01/02/2000	01/01/2003	Patient's request
TDF+DDI+SQV/r	01/01/2003	01/09/2011	Lipodystrophy
TDF+FTC+DRV/r bid	01/09/2011	01/06/2017	Comorbidity (osteoporosis)
TAF+FTC+DRV/r bid	01/06/2017	01/08/2020	Therapeutic simplification
TAF/FTC/DRV/r	01/08/2020	13/01/2023	Oral lead-in to LA CAB/RPV
DTG/RPV	13/01/2023	08/03/2023	Switch to LA CAB/RPV
CAB+RPV (IM)	08/03/2023	ongoing	

Table 1 - History of ARV therapy

Region	Mutations	Date
Protese	V7I, L63S	17/12/1999
Reverse Transcriptase	M184V, T215Y, K219K/E	17/12/1999
Integrase	-	-

Table 2 - Resistance Test