clinical cases DDIs

Date of report 23 Sep 2025

Reported case interaction between **Darunavir** and **Eslicarbazepine**

Drugs suspected to be involved in the DDI

Victim
Darunavir

Daily Dose
800 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
July 2, 2019

End date
Ongoing

Perpetrator
Eslicarbazepine

Daily Dose
1200 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
April 25, 2019

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Darunavir/Cobicistat/Emtricitabine/Tenofovir-AF

Complete list of all comedications taken by the patient, included that involved in the DDI

Eslicarbazepine, Atorvastatin

Clinical case description

Gender

Male

Age

43

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 43-year-old man was diagnosed with HIV in 2013. Antiretroviral therapy (ART) was initiated in October 2013 with darunavir/ritonavir (DRV/r) plus emtricitabine/tenofovir disoproxil fumarate (FTC/TDF) due to transmitted NNRTI resistance. The nadir CD4 count was 990 cells/mm³, and plasma HIV RNA has remained below the limit of quantification since January 2014, without blips.

In July 2014, ART was switched to elvitegravir/cobicistat/FTC/TDF, and in March 2017 to elvitegravir/cobicistat/FTC/TAF.

In April 2019, the patient was diagnosed with complex partial epilepsy and started eslicarbazepine, prescribed by a neurologist. The initial dose was 400 mg daily, gradually increased to 1200 mg daily.

Eslicarbazepine is a weak to moderate inducer of CYP3A4 and UGT enzymes, potentially reducing plasma concentrations of both integrase inhibitors and cobicistat-boosted protease

inhibitors. Considering the high resistance barrier of DRV/cobicistat (DRV/cobi) and the fact that DRV/cobi is not metabolized by UGT, ART was switched in July 2019 to DRV/cobi/FTC/TAF.
After six years of coadministration, both treatments have been well tolerated. Epilepsy remains well controlled, and HIV viral suppression has been maintained without rebound.

Clinical Outcome

No unwanted outcome

Editorial Comment

Eslicarbazepine is a weak to moderate inducer of CYP3A4 and UGT enzymes. Compared with carbamazepine, it has a more favorable safety profile and lower enzyme-inducing potential. Its induction capacity may accelerate the metabolism of antiretrovirals, particularly integrase inhibitors metabolized via UGT1A1 and CYP3A4 substrates. Although this interaction has not been systematically studied, coadministration of eslicarbazepine with darunavir/cobicistat/emtricitabine/tenofovir alafenamide (DRV/cobi/FTC/TAF) could theoretically reduce darunavir and cobicistat concentrations, potentially compromising efficacy and increasing the risk of resistance. In this case, however, the patient maintained durable virological suppression and stable seizure control, with no adverse outcomes over six years of concomitant therapy. These findings suggest that DRV/cobi-based ART may remain a feasible option in patients requiring high-dose eslicarbazepine.

University of Liverpool Recommendation

■ Potential interaction - may require close monitoring, alteration of drug dosage or timing of administration

For more information click here

Personal information from the specialist

Name
Arkaitz

Surname
Imaz

Institution
Bellvitge University Hospital

Country
ES