clinical cases DDIs

Date of report 22 Dec 2021

Reported case interaction between **Dolutegravir** and **Mineral supplements**

Drugs suspected to be involved in the DDI

Victim
Dolutegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
April 11, 2016

End date
Ongoing

Perpetrator
Mineral supplements

Daily Dose
Unknown

Dose adjustment performed
No

Administration Route
Oral

Start date
June 1, 2021

End date
Aug. 15, 2021

Complete list of drugs taken by the patient

Antiretroviral treatment

Dolutegravir
Lamivudine

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

Magnesium supplements

Clinical case description

Gender

Male

Age

41

eGFR (mL/min)

>60

Liver function impairment

No

Description

An overall healthy man living with HIV had long history of ART for more than 12 years including several ARV regimens (3TC/ABC/NEV; 3TC/ABC/ATV/r; 3TC/ABC/DTG and 3TC/DTG). He always presented undetectable viral load for more than 10 years and always reported good adherence to ART. He had no other relevant medical history and he was not taking any other regular medication apart from ART.

In august 2021, he presented with detectable VL at 80 copies/mL for the first time since ART initiation more than 10 years before. He denied any adherence problems or any new medication. However, when specifically asked, he referred had started some months before a natural supplement recommended by his personal trainer at the gym. Checking the composition of the supplement, it included Mg2+. It was

indicated to stop this supplement and VL was repeated 6 weeks later, becoming again undetectable.

Clinical Outcome

Loss of efficacy

Drug Interaction Probability Scale (DIPS)

Score

6 - Probable

Editorial Comment

Dolutegravir binds to divalent cations, such as magnesium, and forms a complex at the level of the gastro-intestinal tract which results in less dolutegravir being absorbed.
Dolutegravir should be administered 2 hours before or 6 hours after taking medications containing magnesium. Dolutegravir should be administered 2 hours before or 6 hours after taking medications containing magnesium.

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
Juan

Surname
Ambrosioni

Institution
Hospital Clinic-IDIBAPS

Country
ES