clinical cases DDIs

Date of report 28 Jul 2025

Reported case interaction between **Dolutegravir** and **Turmeric (Curcuma longa)**

Drugs suspected to be involved in the DDI

Dolutegravir

Daily Dose
50 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Sept. 15, 2023

End date
Ongoing

Turmeric (Curcuma longa)

Daily Dose
Unknown

Dose adjustment performed
No

Administration Route
Oral

Start date
Sept. 15, 2023

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Dolutegravir
Emtricitabine/Tenofovir-DF

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

Curcuma longa (turmeric)
Trigonella foenum-graecum (fenugreek)
Lepidium meyenii (Peruvian Maca)

Clinical case description

Gender

Male

Age

40

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 40-year-old man was diagnosed with HIV infection in September 2023. Basal viral load 165.000 copies/mL (log 5.22) and CD4 count 488 cells/mL (25%). He started an antiretroviral regimen with DTG/3TC/TDF, showing good adherence and tolerance. At his next follow-up visit, two months later, he had already achieved an undetectable viral load but, upon further inquiry, reported that he was also taking turmeric (Curcuma longa), fenugreek (Trigonella foenum-graecum), and Peruvian maca (Lepidium meyenii) to boost his immune system. We investigated potential drug–herb interactions between these supplements and the antiretroviral regimen. Information was found only for turmeric, suggesting a weak potential for interaction with

dolutegravir. No data were available regarding fenugreek or Peruvian maca. Given the patient’s undetectable viral load, adequate CD4 count, and the lack of evidence for pharmacological interactions with these supplements, it was decided to allow the patient to continue their use. Since then, the patient has remained virologically suppressed, with a CD4 count of 800 cells/mL.

The sources consulted to evaluate the potential herb–drug interaction included the Liverpool HIV Drug Interactions database and the Medscape Drug Interaction Checker. Furthermore, we performed a comprehensive literature search using PubMed and Google Scholar to identify any additional relevant information. Unfortunately, therapeutic drug monitoring (TDM) was not conducted due to the unavailability of such services. In Argentina, access to TDM remains limited in many healthcare settings, which regrettably prevented us from obtaining serum drug level data in this case.

Clinical Outcome

No unwanted outcome

Editorial Comment

This case highlights an often overlooked aspect of HIV care: the concurrent use of herbal supplements and antiretroviral therapy (ART). The use of natural products is frequent among people living with HIV. In this case, the patient was taking turmeric (Curcuma longa), fenugreek (Trigonella foenum-graecum), and Peruvian maca (Lepidium meyenii) alongside ART. Among these, only turmeric has limited pharmacokinetic

data suggesting a weak interaction potential. Curcumin and/or turmeric extracts have shown P-glycoprotein (P-gp) inhibition in vitro, but in vivo data are contradictory. No clinically significant interaction with tenofovir disoproxil fumarate has been confirmed, and dose adjustment is not currently recommended.
This case underscores the need to routinely assess supplement use and highlights the limitations in current interaction data. Predicted herb–drug interactions are often based on scarce metabolic studies, and different plant parts or extract types may have varying interaction potentials.

University of Liverpool Recommendation

N/A

Personal information from the specialist

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