clinical cases DDIs

Date of report 12 Dec 2024

Reported case interaction between **Nevirapine** and **Hypericum perforatum**

Drugs suspected to be involved in the DDI

Victim
Nevirapine

Daily Dose
400 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Nov. 1, 2000

End date
Ongoing

Perpetrator
Hypericum perforatum

Daily Dose
Unknown

Dose adjustment performed
No

Administration Route
Oral

Start date

End date

March 1, 2024 June 26, 2024

Complete list of drugs taken by the patient

Antiretroviral treatment

Emtricitabine/Tenofovir-DF
Nevirapine

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

St John's Wort; Garlic supplements; Iron tablets; Propranolol; Zopiclone

Clinical case description

Gender

Female

Age

55

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 55-year-old female, with HIV diagnosis in 2000, had been well-controlled on antiretroviral treatment for many years. During a routine appointment, she reported good adherence to treatment; however, her viral load was found to be 30,700 copies/mL. She later disclosed that she had started taking St. John's Wort. She was advised to stop this immediately. No new resistance mutations were identified, and her viral load decreased to 171 copies/mL three months later.

Clinical Outcome

Loss of efficacy

Drug Interaction Probability Scale (DIPS)

Score

6 - Probable

Editorial Comment

The use of herbal products is common among people with HIV (PWH), with St John’s Wort (Hypericum perforatum) being one of the most widely used. St John’s Wort is a known potent inducer of the cytochrome P450 enzyme CYP3A4. For this reason, coadministration of St John’s Wort with antiretroviral drugs such as nevirapine is contraindicated. According to the University of Liverpool’s drug interaction database, St John’s Wort can significantly reduce nevirapine concentrations, potentially leading to suboptimal drug levels and treatment failure, such as in the present clinical case. Recent research suggests that formulations of St John’s Wort containing very low levels of hyperforin (<1 mg/day)—the component responsible for CYP3A4 induction—may pose a lower risk of clinically significant interactions.

This case highlights the importance of regularly discussing the use of herbal supplements with PWH. Healthcare providers should emphasize the risks associated with certain products, particularly St John’s Wort, due to its potential for drug interactions that could compromise antiretroviral efficacy.

University of Liverpool Recommendation

- These drugs should not be coadministered

For more information click here