clinical cases DDIs

Date of report 28 Jan 2025

Reported case interaction between **Rilpivirine** and **Dulaglutide**

Drugs suspected to be involved in the DDI

Victim
Rilpivirine

Daily Dose
25

Dose adjustment performed
No

Administration Route
Oral

Start date
Aug. 16, 2022

End date
Aug. 27, 2024

Perpetrator
Dulaglutide

Daily Dose
Unknown

Dose adjustment performed
No

Administration Route
Subcutaneous

Start date
Feb. 13, 2024

End date
Ongoing

Complete list of drugs taken by the patient

Antiretroviral treatment

Dolutegravir/Rilpivirine

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

Dulaglutide 3 mg weekly; Meftormin 850 mg twice daily; Enalapril 10 mg daily; Atorvastatin 10 mg daily

Clinical case description

Gender

Male

Age

45

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 45-year-old male, diagnosed with HIV eight years ago, has been on antiretroviral therapy (ART) with dolutegravir/ rilpivirine for the past two years. He is adherent to his HIV treatment and maintains good immunological status, with a viral load consistently below 30 copies/mL over the last seven years.

The patient has a medical history of hypertension, type 2 diabetes mellitus (diagnosed five years ago), obesity (BMI: 33 kg/m^2), and non-alcoholic fatty liver disease (NAFLD). The NAFLD diagnosis was confirmed by liver elastography, which demonstrated grade 2 fibrosis, and abdominal ultrasound findings.

Over the past year, the patient presented with persistent poor glycemic control despite treatment with metformin 850

mg twice daily and sitagliptin 100 mg daily. He also reported difficulty losing weight. During an evaluation by the endocrinology department, dulaglutide (a GLP-1 receptor agonist) was introduced at a dose of 1.5 mg weekly as an adjunct to metformin to improve glycemic control and support weight loss. After six months, his dose of dulaglutide was increased to 3 mg weekly. However, the patient did not inform his HIV care team about the initiation of this therapy. At a six-month follow-up, after initiating dulaglutide, his viral load remained undetectable. However, his attending physician decided to switch his ART regimen to long-acting intramuscular cabotegravir and rilpivirine injections. This decision was made to mitigate potential concerns regarding the absorption and efficacy of oral rilpivirine. Dulaglutide, known to delay gastric emptying and inhibit gastric secretion, could theoretically interfere with rilpivirine absorption, although this coadministration has not been specifically studied.

Clinical Outcome

No unwanted outcome

Editorial Comment

Dulaglutide delays gastric emptying and has the potential to impact the rate of absorption of concomitantly administered oral medicinal products. Dulaglutide doses up to 1.5 mg was shown to have no effect on sitagliptin, paracetamol and digoxin absorption to any clinically relevant degree in clinical studies. This real life study supports these observations.

University of Liverpool Recommendation

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

For more information click here

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