clinical cases DDIs

Date of report 03 Feb 2020

Reported case interaction between **Cobicistat** and **Ergotamine**

Drugs suspected to be involved in the DDI

Perpetrator
Cobicistat

Daily Dose
150 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Jan. 1, 2014

End date
Unknown

Victim
Ergotamine

Daily Dose
1 (mg)

Dose adjustment performed
No

Administration Route
Oral

Start date
Unknown

End date
Unknown

Complete list of drugs taken by the patient

Antiretroviral treatment

Elvitegravir/Cobicistat/Emtricitabine/Tenofovir-DF

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

Caffeine 100 mg once daily, acetaminophen 300 mg once daily, ergotamine 1 mg once daily

Clinical case description

Gender

Male

Age

33

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 33-year-old HIV-infected man on treatment with elvitegravir/cobicistat, emtricitabine, tenofovir-DF presented at the emergency room with severe pain and paresthesias at both calves and feet. The clinical examination showed bilateral and symmetrical feet paleness and coldness. Femoral pulse was present in both legs. A vascular Doppler showed a severe stenosis of the superficial femoral arteries of both legs and the blood tests revealed a creatine phosphokinase elevation (649 UI/mL) in the context of ischaemia. The medication history revealed the use ergotamine for the past 5 days for the treatment of migraine. The patient was diagnosed with arterial ischaemia in relation with ergotism caused by cobicistat inhibition of CYP3A4 mediated metabolism of ergotamine. Ergotamine was stopped and antiretroviral treatment was changed to rilpivirine, emtricitabine and

tenofovir-DF. Furthermore, the patient received treatment with low molecular weight heparin and intravenous prostaglandins. After these interventions, distal pulses recovered and ischaemic signs regressed. The concomitant administration of boosted antiretroviral drugs and ergotamine is contra-indicated due to the risk of ergotism. This case has been publsihed by Navarro J et al. Antivir Ther 2017; 22(1):89-90.

Clinical Outcome

Toxicity

Drug Interaction Probability Scale (DIPS)

Score

7 - Probable

Editorial Comment

Coadministration of ergotamine with strong CYP3A4 inhibitors (such as cobicistat) is contraindicated due to potential for serious and/or life threatening events such as acute ergot toxicity characterized by peripheral vasospasm and ischemia of the extremities and other tissues. Genvoya Summary of Product Characteristics, Gilead Sciences International Ltd, November 2015.

University of Liverpool Recommendation

- These drugs should not be coadministered

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