Date of report 26 Apr 2022

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
Unknown

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-AF

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

Migral®(ergotamine 1 mg, dipyrone 500 mg and caffeine 100 mg)

Clinical case description

Gender

Male

Age

21

eGFR (mL/min)

>60

Liver function impairment

No

Description

A 21-year-old man came to the emergency department for sudden onset of pain and paresthesias in both legs that had started 3 days earlier. His history included smoking 10 cigarettes per day, migraine occasionally treated with Migral® (ergotamine 1 mg, dipyrone 500 mg and caffeine 100 mg) and a recently diagnosed HIV infection on antiretroviral treatment elvitegravir/cobicistat/emtricitabine/ tenofovir alafenamide 150/150/200/10 mg per day. He had no previous symptoms of intermittent claudication, no history of rheumatic diseases, coagulopathies or drug abuse. Femoral pulses in both legs were present, but no popliteal, tibial or pedal pulses were detected on physical examination. He had digital hypoesthesia and preserved motor function. An echo-Doppler did not detect signal in the feet. Increased CPK (754Ul/mL) was observed. In an angio-CT scan the contrast

was barely visible below the knee and did not reach below the ankle in both legs. Acute ischemia secondary to vasospasm was diagnosed. Ergotamine was discontinued and enoxaparin 60 mg sc bid plus prostaglandin E1 60 mcg iv qd, acetylsalicylic acid 100 mg vo qd and nifedipine 20 mg vo qd were started. After 48h, the patient reported no pain and partially recovered digital sensitivity. He was discharged with the same antiretroviral treatment, aspirin 100 mg vo qd, and enoxaparin 60 mg sc bid. Treatment with prostaglandin E1 60 mcg iv qd was maintained for 21 days. At one month follow-up he was asymptomatic. Treatment was suspended and the recommendation to avoid ergotamine derivatives together with his antiretroviral treatment with cobicistat was reinforced.
Hostench-Junoy N et al. describe the second case of ergotism secondary to interaction between ergotamine and cobicistat. (Hostench-Junoy N, et al. Acute Ischemia of Lower Extremities Caused by Ergotamine Toxicity due to Pharmacologic Interaction With Cobicistat in an HIV-Positive Patient. Ann Vasc Surg. 2022;80:392.e1-392.e6. doi:10.1016/j.avsg.2021.09.023)

Clinical Outcome

Toxicity

Drug Interaction Probability Scale (DIPS)

Score

7 - Probable

Editorial Comment

Coadministration of ergotamine and potent CYP3A4 inhibitors such as cobicistat or ritonavir is contraindicated due to potential for increased concentrations of ergotamine and serious and/or life-threatening events such as acute ergot toxicity characterized by peripheral vasospasm and ischemia of the extremities and other tissues.
This case is an example of how the use of boosters in patients with migraine may be dangerous. The use of unboosted regimens in this scenario is recommended. If boosters cannot be avoided, proactive advice about potential risks of combining ergotic drugs with ritonavir or cobicistat is needed.

University of Liverpool Recommendation

- These drugs should not be coadministered

For more information click here

Personal information from the specialist

Name
Montse

Surname
Tuset

Institution
Hospital Clínic Barcelona

Country
ES