

disease, all of them except for fluvastatin, pitavastatin, and rosuvastatin, interact with anti-HIV drugs (via CYP).

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REFERENCES

1. Romero-León JM, Gálvez-Contreras MC, Díez-García LF. Bradicardia sintomática e insuficiencia cardíaca precipitadas por ivabradina a una paciente que recibe

tratamiento antirretroviral. Rev Esp Cardiol. 2016. <http://dx.doi.org/10.1016/j.rec.2016.02.005>

2. López Aspiroz E, Cabrera Figueroa SE, Iglesias Gómez A, Valverde Merino MP, Domínguez-Gil Hurlé A. CYP3A4 polymorphism and lopinavir toxicity in an HIV-infected pregnant woman. Clin Drug Investig. 2015;35:61–6.
3. Humma LM, Terra SG. Pharmacogenetics and cardiovascular disease: impact on drug response and applications to disease management. Am J Health Syst Pharm. 2002;59:1241–52.
4. Crespo-Leiro MG, Segovia-Cubero J, González-Costello J, Bayes-Genis A, López-Fernández S, Roig E, et al. Adecuación en España a las recomendaciones terapéuticas de la guía de la ESC sobre insuficiencia cardíaca: ESC Heart Failure Long-term Registry. Rev Esp Cardiol. 2015;68:785–93.

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About Bradycardia and Secondary Heart Failure Induced by Ivabradine in a Patient With HIV. Response



A propósito de bradicardia e insuficiencia cardíaca secundaria a ivabradina en paciente con VIH. Respuesta

To the Editor,

We thank Morales-Martínez de Tejada for his considerations regarding our letter,¹ and would like to add the following comments. The episode of ivabradine intoxication occurred when the patient was receiving carvedilol, which may have further complicated the situation. The temporal relationship between ivabradine exposure and its discontinuation was clear, and this drug is contraindicated in all patients with human immunodeficiency virus (HIV) infection who are taking protease inhibitors, with or without carvedilol.

As eplerenone is mainly metabolized by CYP3A4,² it should not be administered in combination with potent inhibitors or potent inducers of this enzyme. Our patient had begun to receive the drug 2 years earlier, after an acute myocardial infarction and, as her left ventricular ejection fraction remains low, she continues to take it. In follow-up visits prior to and after the aforementioned episode, she was always found to have normal serum potassium concentrations. Eventually, the decision was made to simplify her antiretroviral therapy and the viral protease inhibitors were discontinued. As Dr. Morales-Martínez de Tejada points out, emtricitabine and tenofovir are mainly eliminated by the kidneys, and caution should be exercised when they are administered together with medications, such as aspirin, which are removed by active tubular secretion. However, the combined use of these drugs is not formally contraindicated.³

Finally, pharmacogenetic studies may have a number of applications in the treatment of cardiovascular diseases and could

provide solutions to these problems. However, we still have much to learn about their usefulness before incorporating them as a regular part of clinical decision-making.⁴ Meanwhile, we should be on the alert for possible interactions among the drugs we prescribe to our patients and study them conscientiously.

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REFERENCES

1. Romero-León JM, Gálvez-Contreras MC, Díez-García LF. Bradicardia sintomática e insuficiencia cardíaca precipitadas por ivabradina a una paciente que recibe tratamiento antirretroviral. Rev Esp Cardiol. 2016;69:529–30.
2. Dhillon S. Eplerenone: a review of its use in patients with chronic systolic heart failure and mild symptoms. Drugs. 2013;73:1451–62.
3. Interactions with NRTIs. [accessed 14 Apr 2016]. Available at: <http://www.hiv-druginteractions.org>.
4. Humma LM, Terra SG. Pharmacogenetics and cardiovascular disease: impact on drug response and applications to disease management. Am J Health Syst Pharm. 2002;59:1241–52.

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Systemic Thrombolysis for High-risk Pulmonary Embolism Versus Percutaneous Transcatheter Treatment



Trombolisis sistémica de la embolia pulmonar de alto riesgo frente al tratamiento percutáneo

To the Editor,

Systemic thrombolysis for primary reperfusion therapy is the treatment of choice for patients with high-risk pulmonary embolism (PE) (ie, those with shock or hypotension). If

thrombolysis is contraindicated or has failed, surgical embolectomy or percutaneous catheter-directed treatment is recommended. However, when systemic thrombolytic therapy is contraindicated, local administration is also contraindicated, in which case transcatheter procedures should be used without local thrombolysis.¹ Sánchez-Recalde et al² presented a series of 8 PE patients treated at their hospital. Seven patients underwent percutaneous treatment, of whom 4 also received local catheter-administered alteplase, although this approach is contraindicated for thrombolysis. According to the recommendations of the clinical guidelines, traumatic brain injury is an absolute contraindication and thus alteplase should not have been used. The