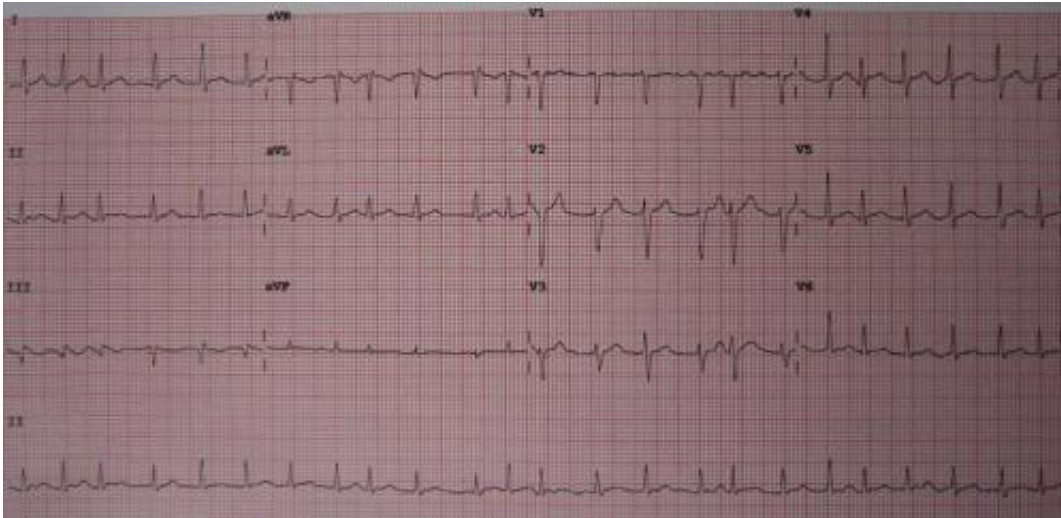


Levetiracetam may reduce anticoagulation effect of rivaroxaban

April 14 2020



A 12 lead ECG showing atrial fibrillation at approximately 150 beats per minute.
Credit: James Heilman, MD/Wikipedia/CC BY-SA 3.0

Levetiracetam, a commonly used medication to prevent seizures, may reduce the anticoagulation effect of oral rivaroxaban in humans. As such, clinicians should measure direct oral anticoagulant plasma levels during treatment. A case report is published in *Annals of Internal Medicine*.

Clinical guidelines recommend the use of levetiracetam with oral anticoagulants because animal studies suggest that the anti-convulsant acts as a P-glycoprotein inducer to reduce [rivaroxaban](#) plasma levels.

However, not everyone is convinced that levetiracetam should be avoided in patients receiving rivaroxaban because there is little or no published evidence describing this interaction in humans.

Researchers from the University of Perugia, Perugia, Italy, report the case of a 69-year-old man who was taking rivaroxaban for [atrial fibrillation](#) and started to experience seizures in his right frontal lobe, for which he was prescribed levetiracetam. Several months later, he was clinically diagnosed with recurrent transient ischemic attacks. The clinicians measured his rivaroxaban plasma levels to determine if low levels would explain the transient ischemic attacks and then changed levetiracetam with lacosamide, an anticonvulsive not interfering with P-glycoprotein. Repeated measurement of rivaroxaban plasma levels showed a clinically relevant interaction between [levetiracetam](#) and rivaroxaban, where the drug reduced plasma levels, with a particularly strong and long-lasting effect on trough levels.

The clinicians believe that this interaction is clinically important but caution that their study was limited and they did not measure P-glycoprotein activity in the patient.

More information: *Annals of Internal Medicine* (2020).
<http://annals.org/aim/article/doi/10.7326/L19-0712>

Provided by American College of Physicians

Citation: Levetiracetam may reduce anticoagulation effect of rivaroxaban (2020, April 14)
retrieved 4 April 2024 from
<https://medicalxpress.com/news/2020-04-levetiracetam-anticoagulation-effect-rivaroxaban.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.