

## REBOUND PHENOMENON – IMPORTANT AND UBIQUITOUS IN PHARMACOTHERAPY

*Maja Koraćević<sup>1</sup>, Jelena Lalić<sup>1</sup>, Sonja Nedeljković<sup>2</sup>, Goran Koraćević<sup>3,4</sup>*

<sup>1</sup>University of Niš, Faculty of Medicine, Department of Pharmacy, Niš, Serbia

<sup>2</sup>Pharmacy "Nevenpharm", Niš, Serbia

<sup>3</sup>University of Niš, Faculty of Medicine, Niš, Serbia

<sup>4</sup>Department for Cardiovascular Diseases, Clinical Center Niš, Serbia

Contact: Maja Koraćević

9. brigade 53/50, 18000 Niš, Serbia

E-mail: koracevic.maja@gmail.com

The rebound effect represents a common characteristic of the numerous classes of modern drugs and can result in serious and even fatal disorders. For example, prolonged administration of proton pump inhibitor (PPI) leads to moderate hypergastrinemia in 20-25%. This hypergastrinemia will result in rebound gastric acid hypersecretion in 30-40% of patients following the abrupt PPI discontinuation. PPIs are among the most widely used drugs worldwide.

An abrupt cessation of chronic corticosteroid, beta blocker, or opioid treatment may also provoke rebound phenomenon. Even in heart failure patients, beta blocker withdrawal on admission resulted in a significant increase of the probability of in-hospital mortality. The incidence of a rebound phenomenon depends on numerous factors, including the intensity and duration of action of a particular drug and how long it has been applied; the susceptibility of an individual patient (regarding the comorbidities and the severity of the primary disease) and the related circumstances (e.g. co-therapy). The clinical importance of the rebound phenomenon varies from academic to lethal. Even rare rebounds found for some classes of drugs are becoming very important if the drug has been used often globally.

*Acta Medica Medianae 2018;57(4):148-152.*

**Key words:** rebound, proton pump inhibitor, corticosteroid, beta blocker, opioid