
Author's Reply

To the Editor,

We would like to thank the authors for their interest in our paper and their comments regarding our study entitled "A review of

the fixed dose use of new oral anticoagulants in obese patients: Is it really enough?" published in *Anatol J Cardiol* 2015; 15: 1020-9 (1).

Under-representation of obese patients in the subgroups of relevant studies raises concerns about the efficacy and safety of new oral anticoagulants (NOACs). The number of patients with high body weights is quite low in studies investigating the pharmacodynamics and pharmacokinetics of NOACs. In the context of data obtained from these studies, a fixed dose use of NOACs is recommended for obese or morbidly obese patients with no distinction from other patients. However, various recent case reports of pulmonary embolism or stroke under NOAC therapy have led to questions about the efficacy of fixed dose in this patient population. Increased creatinine clearance seems to be the most likely responsible mechanism. To overcome this problem, it is advisable to use drugs with less renal excretion in patients with increased creatinine clearance. Nevertheless, this hypothesis needs to be confirmed with randomized studies.

We would like to thank the authors for sharing their unpublished data about their patients with high body weights. Apart from the inefficiency problem with fixed dose use of NOACs in obese patients, concerns about bleeding risk in patients with a low body mass index or weight <50 kg are noteworthy as the authors stated. Similarly, rivaroxaban 15 mg was used in the J-ROCKET AF trial unlike the global ROCKET-AF trial, and this dose was recommended for the Japanese population (2). Routine monitorization of the plasma levels of NOACs in morbidly obese patients to decrease complications might be an alternative option. Although determination of activated partial thromboplastin time for dabigatran and factor Xa level for rivaroxaban was suggested for urgent conditions (3), methodological uncertainty prevents the recommendation of an ideal treatment dose in clinical practice as emphasized by the authors (4). Approval and marketing of unavailable antidotes for NOACs could be useful to some extent in patients suffering from bleeding complications.

Furthermore, frequent follow-up visits of patients under NOAC therapy might help the earlier detection of bleeding or embolic complications; however, it may not always prove useful because of the lack of instruments for monitorization of drug efficacy. Further studies are warranted for the determination of an ideal dose of NOACs in morbidly obese patients.

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