VIA MEDICA

LETTER TO THE EDITOR

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Antiplatelet therapy in elderly patients after acute coronary syndrome

To the Editor

The authors of the editorial published in the current issue of the Medical Research Journal stated that older patients are more liable to bleeding complications than younger ones due to the presence of clinical comorbidities that increase bleeding risk [1]. Therefore, the choice of an appropriate antiplatelet strategy is difficult to pursue. In the ELDERLY ACS 2 trial [2, 3] thrombotic events were lower during the first month of treatment in the low-dose prasugrel arm (5 mg once a day), whereas bleeding events were higher than in the standard dose clopidogrel (75 mg once a day) arm in the late phase after acute coronary syndrome (31–365 days) [3]. Considering the available evidence, the authors suggest that the de-escalation strategy appears suitable for patients in whom high bleeding risk is associated with high thrombotic risk [4].

Various de-escalation strategies of antiplatelet therapy have been and are currently being tested: switching from a stronger to a weaker P2Y12 inhibitor, switching from dual antiplatelet therapy to monotherapy, and reducing the dose of the P2Y12 inhibitor [5–9].

The ELECTRA-SIRIO 2 trial combines the strategies of P2Y12 inhibitor dose lowering and eliminating of aspirin [5], as it was hypothesized, that the reduction of ticagrelor maintenance dose to 60 mg b.i.d. 1 month after ACS, followed by aspirin withdrawal at 3 months after acute coronary syndrome will result in improved safety and tolerability of treatment with preserved anti-ischemic benefit [10, 11]. As the premature discontinuation of antiplatelet treatment is mainly related to bleeding, this approach may also be effective and safe in elderly patients [12, 13]. Monotherapy with low-dose ticagrelor would be expected to result in better adherence to treatment in real-life practice. Regardless of the expected higher adherence, special care is paid to keep patients on the study treatment, as termination of ticagrelor leaves the patients in the monotherapy arm unprotected against ischemic consequences, such as recurrent ACS [14–17]. All patients enrolled on the ELECTRA-SIRIO 2 trial undergo continuous multilevel educational and motivational interventions according to the Multilevel Educational and Motivational Intervention in Patients After Myocardial Infarction (MEDMOTION) project, including assessment with the Readiness for Hospital Discharge after Myocardial Infarction Scale at the end of hospitalization, with the Functioning in Chronic Illness Scale and the Adherence in Chronic Disease Scale during follow-ups [18–29].

The new approach of antiplatelet therapy de-escalation currently tested in the ELECTRA-SIRIO 2 trial is expected to decrease the incidence of clinically significant bleeding events during the first year after ACS, without a negative impact on the antithrombotic efficacy. In contrast to other de-escalation strategies, this approach does not require a platelet reactivity assessment, making this step-down of treatment easy and friendly for wide application in elderly patients.

References

1. Servi SDe, Landi A. Antiplatelet treatment for older patients with ACS — a challenging issue. Med Res J. 2023, doi: 10.5603/mrj.a2023.0002.
2. Savonitto S, Ferri LA, Piatti L, et al. Elderly ACS 2 Investigators. A comparison of reduced-dose prasugrel and standard-dose clopidogrel in elderly patients with acute coronary syndromes undergoing early percutaneous revascularization: Design and rationale of the randomized Elderly-ACS 2 study. Am Heart J. 2016; 181(23): 101–106, doi: 10.1016/j.ahj.2016.08.010, indexed in Pubmed: 27823681.
3. Crimi G, Morici N, Ferrario M, et al. Time course of ischemic and bleeding burden in elderly patients with acute coronary syndromes

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randomized to low-dose prasugrel or clopidogrel. J Am Heart Assoc. 2019; 8(2): e010956, doi: 10.1161/JAHA.118.010956, indexed in Pubmed: 30636561.
4. De Servi S, Landi A, Savonitto S, et al. Tailoring oral antiplatelet therapy in acute coronary syndromes: from guidelines to clinical practice. J Cardiovasc Med (Hagerstown). 2023; 24(2): 77–86, doi: 10.2459/JCM.0000000000001399, indexed in Pubmed: 36583976.
5. Kubica J, Adamski P, Gorog DA, et al. Prolonged antithrombotic therapy in patients after acute coronary syndrome: A critical appraisal of current European Society of Cardiology guidelines. Cardiol J. 2020; 27(6): 661–676, doi: 10.5603/CJ.a2020.0132, indexed in Pubmed: 33073857.
6. Sibbing D, Aradi D, Jacobshagen C, et al. TROPICAL-ACS Investigators. Guided de-escalation of antiplatelet treatment in patients with acute coronary syndrome undergoing percutaneous coronary intervention (TROPICAL-ACS): a randomised, open-label, multicentre trial. Lancet. 2017; 390(10104): 1747–1757, doi: 10.1016/S0140-6736(17)32155-4, indexed in Pubmed: 28855078.
7. Kubica J, Adamski P, Niezgoda P, et al. A new approach to ticagrelor--based de-escalation of antiplatelet therapy after acute coronary syndrome. A rationale for a randomized, double-blind, placebo-controlled, investigator-initiated, multicenter clinical study. Cardiol J. 2021; 28(4): 607–614, doi: 10.5603/CJ.a2021.0056, indexed in Pubmed: 34096012.
8. Kheiri B, Osman M, Abdalla A, et al. De-escalation of antiplatelet therapy in patients with acute coronary syndrome undergoing percutaneous coronary intervention: a meta-analysis of randomized clinical trials. J Cardiovasc Pharmacol Ther. 2019; 24(2): 153–159, doi: 10.1177/1074248418809098, indexed in Pubmed: 30419754.
9. Kim HK, Kubica J, Jeong YH. Ticagrelor vs clopidogrel for patients with acute coronary syndrome undergoing percutaneous intervention. JAMA. 2021; 325(9): 890, doi: 10.1001/jama.2020.26020, indexed in Pubmed: 33651086.
10. Kubica J, Adamski P, Buszko K, et al. Rationale and Design of the Effectiveness of LowEr maintenanCe dose of TicagRelor early After myocardial infarction (ELECTRA) pilot study. Eur Heart J Cardiovasc Pharmacother. 2018; 4(3): 152–157, doi: 10.1093/ehjcvp/pvx032, indexed in Pubmed: 29040445.
11. Kubica J, Adamski P, Buszko K, et al. Platelet inhibition with standard vs. lower maintenance dose of ticagrelor early after myocardial infarction (ELECTRA): a randomized, open-label, active-controlled pharmacodynamic and pharmacokinetic study. Eur Heart J Cardiovasc Pharmacother. 2019; 5(3): 139–148, doi: 10.1093/ehjcvp/pvz004, indexed in Pubmed: 30689800.
12. Adamski P, Ostrowska M, Navarese EP, et al. Pharmacodynamic and clinical efficacy of reduced ticagrelor maintenance doses in patients with coronary artery disease. Curr Med Res Opin. 2021; 37(2): 195–206, doi: 10.1080/03007995.2020.1854207, indexed in Pubmed: 33211543.
13. Ostrowska M, Kubica J, Adamski P, et al. Stratified approaches to antiplatelet therapies based on platelet reactivity testing. Front Cardiovasc Med. 2019; 6: 176, doi: 10.3389/fcvm.2019.00176, indexed in Pubmed: 31850373.
14. Pietrzykowski Ł, Kasprzak M, Michalski P, et al. Therapy discontinuation after myocardial infarction. J Clin Med. 2020; 9(12), doi: 10.3390/jcm9124109, indexed in Pubmed: 33352811.
15. Kubica A, Obońska K, Fabiszak T, et al. Adherence to antiplatelet treatment with P2Y12 receptor inhibitors. Is there anything we can do to improve it? A systematic review of randomized trials. Curr Med Res Opin. 2016; 32(8): 1441–1451, doi: 10.1080/03007995.2016.1182901, indexed in Pubmed: 27112628.
16. Kubica A, Kasprzak M, Obońska K, et al. Discrepancies in assessment of adherence to antiplatelet treatment after myocardial infarction. Pharmacology. 2015; 95(1-2): 50–58, doi: 10.1159/000371392, indexed in Pubmed: 25592409.
17. Kubica A, Gruchała M, Jaguszewski M, et al. Adherence to treatment — a pivotal issue in long-term treatment of patients with cardiovascular diseases. An expert standpoint. Med Res J. 2018; 2(4): 123–127, doi: 10.5603/mrj.2017.0016.
18. Kubica A, Adamski P, Bączkowska A, et al. The rationale for multilevel educational and motivational intervention in patients after myocardial infarction (MEDMOTION) project is to support multicentre randomized clinical trial evaluating safety and efficacy of two ticagrelor-based de--escalation antiplatelet strategies in acute coronary syndrome (ELECTRA – SIRIO 2). Med Res J. 2020; 5(4): 244–249, doi: 10.5603/mrj.a2020.0043.
19. Pietrzykowski Ł, Michalski P, Kosobucka A, et al. Medication adherence and its determinants in patients after myocardial infarction. Sci Rep. 2020; 10(1): 12028, doi: 10.1038/s41598-020-68915-1, indexed in Pubmed: 32694522.
20. Kosobucka A, Pietrzykowski Ł, Michalski P, et al. Impact of readiness for discharge from the hospital on the implementation of the therapeutic plan. Medl Res J. 2020; 5(4): 256–264, doi: 10.5603/mrj.a2020.0047.
21. Buszko K, Pietrzykowski Ł, Michalski P, et al. Validation of the Functioning in Chronic Illness Scale (FCIS). Medical Research Journal. 2018; 3(2): 63–69, doi: 10.5603/mrj.2018.0011.
22. Pietrzykowski Ł, Michalski P, Kosobucka A, et al. Knowledge about health and disease in obese patients after myocardial infarction. An observational study. Med Res J. 2018; 2(4): 135–140, doi: 10.5603/mrj.2017.0018.
23. Buszko K, Kosobucka A, Michalski P, et al. The readiness for hospital discharge of patients after acute myocardial infarction: a new self-reported questionnaire. Medl Res J. 2017; 2(1): 20–28, doi: 10.5603/mrj.2017.0004.
24. Kubica A. Self-reported questionnaires for a comprehensive assessment of patients after acute coronary syndrome. Med Res J. 2019; 4(2): 106–109, doi: 10.5603/mrj.a2019.0021.
25. Kosobucka A, Michalski P, Pietrzykowski Ł, et al. The impact of readiness to discharge from hospital on adherence to treatment in patients after myocardial infarction. Cardiol J. 2022; 29(4): 582–590, doi: 10.5603/CJ.a2020.0005, indexed in Pubmed: 32037501.
26. Kubica A, Kosobucka A, Fabiszak T, et al. Assessment of adherence to medication in patients after myocardial infarction treated with percutaneous coronary intervention. Is there a place for newself-reported questionnaires? Curr Med Res Opin. 2019; 35(2): 341–349, doi: 10.1080/03007995.2018.1510385, indexed in Pubmed: 30091642.
27. Kosobucka A, Michalski P, Pietrzykowski Ł, et al. Adherence to treatment assessed with the Adherence in Chronic Diseases Scale in patients after myocardial infarction. Patient Prefer Adherence. 2018; 12: 333–340, doi: 10.2147/PPA.S150435, indexed in Pubmed: 29551891.
28. Michalski P, Kasprzak M, Siedlaczek M, et al. The impact of knowledge and effectiveness of educational intervention on readiness for hospital discharge and adherence to therapeutic recommendations in patients with acute coronary syndrome. Med Res J. 2020: 72–78, doi: 10.5603/mrj.a2020.0023.
29. Kubica A, Kosobucka A, Michalski P, et al. Self-reported questionnaires for assessment adherence to treatment in patients with cardiovascular diseases. Med Res J. 2018; 2(4): 115–122, doi: 10.5603/mrj.2017.0015.