Mean platelet volume as diagnostic and therapeutic marker of risk and prognosis of heart disease

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Statistics

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Increased mean platelet volume (MPV) is associated with platelet reactivity and is a predictor of cardiovascular risk and unprovoked nervous thromboembolism. Mean platelet volume is a precise measure of platelet size. Studies have reported the use of MPV as a biomarker for predicting ischemic stroke in atrial fibrillation patients as well as in anticoagulant prescription and rhythm-control therapy. Moreover, MPV may predict cardiovascular event outcome following percutaneous coronary intervention in patients with coronary artery disease. MPV may predict residual platelet reactivity in dual antiplatelet therapy. Factors influencing MPV result were discussed. This review centered on the reports that MPV may be a biomarker of risk and prognosis of prevalent heart diseases.
THANKS to Reviewers

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1. Mean platelet volume detects blood disorders. The platelet count test is used to screen whether or not the body has sufficient amount of circulating platelets. It can also reflect the status of platelet production in the bone marrow. This condition places the person at risk of medical conditions such as cardiovascular diseases, stroke, or thrombosis. In such situations, aspirin may be prescribed due to having a capacity to prevent the clumping together of platelets in forming clots. It can be used as a prognostic marker to determine whether the outcome in patients with these conditions will be favourable or unfavourable. It has been observed that patients with a higher prevalence of stroke in the past are the ones to have a mean platelet volume more than 9.4 fL. The potential and limitations of plasma BNP measurement in the diagnosis, prognosis, and management of children with heart failure due to congenital cardiac disease: an update. Authors. Authors and affiliations. Cantinotti M, Giovannini S, Murzi B, Clerico A (2011) Review: Diagnostic, prognostic and therapeutic relevance of B-type natriuretic peptide assay in children with congenital heart diseases. Clin Chem Lab Med 49:567–580 PubMed Google Scholar.

3. Diagnosis and following of disease. Mean Platelet Volume (MPV), the most extensively studied platelet activation marker, is routinely measured by complete blood count analyzers. MPV has been shown as an inflammatory marker in some diseases including myocardial infarction, ischemic stroke, ulcerative colitis, Crohn’s Disease, acute appendicitis, Crimean-Congo hemorrhagic fever (CCHF), pulmonary tuberculosis [9-15]. To date, there is no study reporting the role of MPV in human brucellosis and its correlation with other inflammatory (ESR-Erythrocyte Sedimentation Rate, CRP-C Reactive Protein) marker... Mean Platelet Volume in the Diagnosis and Prognosis of Crimean-Congo Hemorrhagic Fever. Clin Appl Thromb Hemost 2012.