

## Editorial



### **From Editor-in-Chief: Exceptional news and updating goals, current issue, AHA 2022 congress, important practice updates and keeping your patients safe from severe COVID and tripledemic**

Dear readers,

First of all I would like to share excellent news – we are accepted in the SCOPUS database. I thank my editors and reviewers for dedicated work on evaluation and selection and improvement of manuscripts and authors for participation in peer-review and altogether bringing up new evidence; I would like to thank external reviewers experts who responded to invitation and contributed to journal's content quality; Editors for hard work not only evaluation but also educational activities and excellent editorial work. Many thanks to my team at the Center for Scientific research and Development of Education and SRHISOT for bringing up idea of creating journal and tremendous hard work and support. This is an acknowledgement of our work and content (we will continue improving) we produce but we have now further goals as improve our journal's performance and enter at least the 3rd quartile in SCIMAGO SCOPUS ranking and to be accepted for indexing in PUBMED, PMC and Clarivate databases.

In current issue, you can find editorials summarizing what is new in the latest guidelines presented at ESC 2022 - sudden cardiac death and ventricular arrhythmias, ACC guidelines on chest pain evaluation 2021 from the imaging specialist perspective, and CAD RAD 2022 – on evaluation of coronary artery lesions using computed tomography. Also we published very interesting editorial on blood pressure evaluation and

management of BP variations in elderly. The research articles on coronary artery diameter variations in Indian population – the knowledge needed for coronary interventions; the case series and comprehensive analysis and management of cases reported in literature on infective endocarditis in pregnancy and postpartum; case series on surgical management of diaphragmatic eventration – the cause of chest pain and dyspnea you should keep in mind. Two case reports on surgical management of giant ascending aorta aneurysm and Brugada syndrome unmasked by COVID vaccination. Letter on doctors profession and news on EHRA course in Kazakhstan.

Recently the AHA annual scientific session took place in Chicago, IL, USA. The most important presented trials that caught up my attention are: EARLY-AF, ECMO-CS, RAPCO-RITA, RAPCO-SV and DOSE-VF trails. EARLY AF trial demonstrated the cryoablation of paroxysmal atrial fibrillation (AF) as initial strategy was accompanied with less recurrence of AF (persistent AF 1.9% vs 7.4%,  $p < 0.05$ ) and atrial tachyarrhythmia and less hospitalizations as compared to antiarrhythmic therapy during 3 years of follow-up (1).

ECMO-CS trial showed no benefit of veno-arterial extracorporeal membrane oxygenation in severe cardiogenic shock as compared to standard therapy in terms of mortality, other mechanical support and resuscitated cardiac arrest (2).

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RAPCO-RITA trial demonstrated that radial artery conduit was associated with less adverse outcomes - all-cause mortality, myocardial infarction and revascularization (39.4% vs 48.5%,  $p=0.04$  – primary outcome) during 16 years of follow-up than right internal thoracic artery (3) and RAPCO SV trial showed also significantly less primary outcome 60.2% vs 73.2 ( $p=0.04$ ) with radial artery bypass conduit as compared to saphenous vein graft (3). DOSE VF trial demonstrated that 2 strategies - vector change (changing pad to antero-posterior position from antero-lateral) and DSED (double sequential external defibrillation) - defibrillation sequentially (1 sec apart) by 2 defibrillators one in antero-posterior position caused better survival of patients with refractory ventricular fibrillation (13.3% vs 30.4% and 21.7%,  $p=0.009$ ) (4).

The new documents published by ACC recently (5-7) including the 2022 ACC/AHA new definitions for chest pain and myocardial infarction (5) worth studying and implementing in your practice. The chest pain management in emergency department (ED) ACC consensus document pathway 2022 (6) focuses on patients with possible acute coronary syndrome (ACS). It is based on the evaluation of electrocardiogram (ECG), and high sensitive cardiac troponin (hs-cTn) measurements and noninvasive imaging. If a patient applies to ED with symptoms concerning for ACS and ECG shows ST-elevation myocardial infarction (STEMI) or equivalent – manage as per ACC/AHA STEMI guideline or if ECG is consistent with ischemic changes – manage according to ACC/AHA ACS guideline. If ECG demonstrates nonischemic changes one should proceed with hs-cTn clinical decision pathways. If a patient is at low risk ruled out by hs-cTn she/he could be discharged with follow-up, if a patient is found to be at intermediate risk – repeat hs-cTn at 3-6 hours; stratify risk with HEART score or EDACS (Emergency Department Assessment of Chest Pain Score), review prior testing – and if abnormal delta hs-cTn manage as at high risk/abnormal or consider noninvasive testing if patient does not meet (see further) re-classification as low risk; if hs-cTn is unchanged during serial testing with recent normal coronary or computed tomography angiography < 2 years or negative stress testing < 1 year ago; symptoms are inconsistent with possible ACS; chronic elevations in hs-cTn are unchanged when compared with levels measured previously or modified HEART score is  $\leq 3$  and EDACS <16 – reclassify as low

risk. If a patient is determined to be at high risk / abnormal – classify as per universal definition of myocardial infarction (MI): type I MI, type 2 MI, acute myocardial injury and chronic myocardial injury. The document in concise and one should comprehend the clinical decision pathways on ECG, hs-cTn, risk stratification and noninvasive testing and management. Another document is the ACC clinical decision pathway for patients with atherosclerotic cardiovascular disease (ASCVD) and multimorbidity (7). It offers model care approach to patients with comorbidities: medical, mind and motion, physical functioning and social physical environment. For example, one should reconsider the management of patients with ASCVD and multimorbidity: to avoid polypharmacy use the medicines shown effective in several conditions – example SGLT2 inhibitor for a patient with heart failure and type 2 diabetes mellitus and chronic kidney disease, use medicine with fewer harms – e.g DOAC for atrial fibrillation and peripheral artery diseases, use medicines to improve survival - statins for ASCVD and health status including quality of life (CRT for ischemic heart disease with reduced EF and LBBB) and use drugs with low cost (7).

We have now bivalent booster vaccines now that are effective against new variants of Omicron (8), though not all countries have it in armamentarium against COVID. The virus is still perpetrating and currently the concerns are regarding triplememic - combination of COVID, flu and respiratory syncytial virus. To protect your patients with heart diseases especially older population and immunocompromised after transplantation recommend to your patients to receive booster doses of COVID vaccine and seasonal flu vaccine, and keep apart of children with respiratory syncytial virus infection. As both COVID vaccination and seasonal flu vaccinations were shown to reduce cardiovascular disease adverse outcomes (9-11).

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