

## CoVid-19 Cardiac Complications: Is an Easy, Safe Treatment Strategy Right Under Our Noses?

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### Abstract

**Background:** Many chronic conditions, as diabetes (DM) and cardiovascular Diseases, suffer Major Adverse Cardiac Events (MACE): i myocarditis, congestive heart failure (CHF), Ventricular Tachycardia (VT), Ventricular Fibrillation (VF), Acute Coronary Syndromes [ACSs], and Sudden Cardiac Death (SCD) Acute infections, like COVID-19, also involve oxidative stress, leading to increased Sympathetic tone (S) and decreased Parasympathetic tone (P), increasing Sympathovagal Balance (SB) and MACE. The antioxidant (r)alpha lipoic acid (ALA) improves SB. The anti-anginal Ranolazine (RAN), also an antioxidant, is an anti-arrhythmic. Our studies of their effects on MACE, in DM, and non-DM patients with CHF, ventricular arrhythmias and SCD are reviewed herein, as our findings may apply to acute diseases, such as COVID-19.

**Methods:** (1) In a case-control study, 109 CHF patients, 54 were given adjunctive off-label RAN added to ACC/AHA Guideline therapy (RANCHF). MACE and SB were compared with 55 NORANCHF patients; mean f/u 23.7 mo.

(2) 59 adults with triggered premature ventricular contractions (PVCs), bigeminy, and VT were given off-label RAN. Pre- and post-RAN Holters were compared; mean f/u 3.1 mo.

(3) 133 DM II with cardiac diabetic autonomic neuropathy were offered (r)ALA; 83 accepted; 50 refused. P&S were followed a mean of 6.31 yrs, and SCDs recorded.

**Results:** (1) 70% of RANCHF patients increased LVEF 11.3 EFUs ( $p \leq 0.003$ ), SCD reduced 56%; VT/VF therapies decreased 53%.

(2) 95% of patients responded: VT decreased 91% ( $p < 0.001$ ).

(3) SCD was reduced 43% in DM II patients taking (r)ALA ( $p = 0.0076$ ).

**Conclusions:** RAN, (r)ALA treat CHF, VT, and prevent SCD. Trials in COVID-19 are needed. These instructions give

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**Keywords**— Key words: ranolazine, (r) Alpha Lipoic Acid, sudden cardiac death, congestive heart failure, CoVid-19 *Four key words or phrases in alphabetical order, separated by commas*

### Biography:

Gary L. Murray MD, FACC, FICA is Research Director, The Heart and Vascular Institute, Germantown, TN, USA, and Co-Chairman Membership Committee, International Collage of Angiology. After Tulane School of Medicine and The University of TN Center of Health Sciences, he has managed to co-invent the Schaad- Murray RNA CAD and IPPA Myocardial Viability Tests, and publish several articles regarding new methods of CAD, CHF, HBP, AODM and CV autonomic assessment/management, despite a full-time private practice.



### Speaker Publications:

[World Heart Congress](#); Online Event- September 29, 2020.

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