

**Opinion**

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A Second Look at Chelation Therapy During COVID-19 as A Viable Option for Treating Cardiac Endothelial Dysfunction

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Across the United States and the world, COVID-19 has altered the manner patients are treated and admitted to the hospital. Through this pandemic, bed space has been allocated for the massive on-rush of patients requiring acute assistance with ventilations and survival. There has been a 60% reduction in non-emergent surgeries being postponed due to lack of available beds, due to precautions for COVID exposure, and due to decreased staff available for non-COVID patients [1-3]. Added to this mix is the fact that patients with pre-existing coronary artery disease (CAD) are more at risk for cardiac injury and complications if exposed to the coronavirus [4]. According to [4] complications from COVID include myocarditis, arrhythmia, and heart failure and are observed in CAD patients (as a result of the COVID virus) and non-CAD patients alike and are permanent. This is due, in part, to the cytokine release syndrome seen in many COVID patients (Ganatra, et al., 2020). The population without CAD issues can simply avoid exposure to the virus to ensure that they will not develop the CAD symptoms; however, the patients with pre-existing CAD may have their conditions exacerbated. Traditional therapies for myocarditis, arrhythmia, and heart failure could entail hospitalization with IV antibiotics, cardiac procedures entailing angiograms, with the result of in-hospital admissions for monitoring and treatment [5-7]. Medical intervention and treatment measures after exacerbation have demonstrated they are significantly more expensive than prevention measures [8].

Many studies have been conducted and published regarding the benefits of chelation therapy. One of the first studies demonstrated

the effects of chelation therapy on improving cardiac patient symptoms and electrocardiographic improvement [9]. Later studies have further shown that contributing to cardiovascular disease are xenobiotic metals (i.e., lead, cadmium, mercury, arsenic) which in elevated levels demonstrates that there is a correlation between the presence of heavy metals that help to initiate CAD symptoms and contributed to increased mortality rates from heart disease [10-13]. Studies conducted on the general population have demonstrated that these metals are in our environment and the population is constantly exposed to the heavy metals. Houston (2007) linked xenobiotic metals with myocardial infarction. Peguero and associates (2015) in a TACT study demonstrated that chelation therapy significantly reduced the presence of xenobiotic metals in participants with CAD who were treated for a myocardial infarction at least 6 weeks prior to the chelation therapy. The study encompassed 1708 patients who were randomized into a placebo group and a chelation group. Participants in this study were both male and female patients with a median age of 65.

In light of the COVID pandemic we are presently experiencing, and with the studies demonstrating reduced symptoms and EKG arrhythmia improvement, chelation therapy might bring a needed alternative method to CAD patients to prevent exacerbations in their condition and decrease hospital admissions. Additional benefits of chelation therapy have also been demonstrated on diabetic patients who are also at risk for developing cardiac illness and peripheral artery disease (PAD) [14-16]. Chelation therapy through current quantitative experimental research studies are demonstrating

that this therapy should be reviewed and considered for a viable option for CAD patients to prevent disease exacerbations and hospitalizations currently and in the future.

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Conflict of Interest

No conflict of interest.

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