conferenceseries.com

J Clin Exp Cardiolog 2018, Volume 9
DOI: 10.4172/2155-9880-C3-096

Green tea extract improves diastolic dysfunction in pediatric cardiomyopathy patients: An observational study

Jie Tian, Xupei Huang and Junjun Quan
Children's Hospital of Chongqing Medical University, China

Background & Aim: Hypertrophic cardiomyopathy (HCM) and restrictive cardiomyopathy (RCM) are the common genetic types of inheritable heart disease and share a common pathophysiologic feature of diastolic dysfunction referring to an impaired cardiac relaxation and a reduced ability in ventricular compliance during diastole. The efficient causative treatment of patients with HCM or RCM is limited. Recent reports indicate the potential effect of epigallocatechin-3-gallate (EGCG), the most abundant catechin in green tea, on reducing cardiac myofibril hypersensitivity to Ca^{2+} to improve diastolic dysfunction. In this study, we investigated changes of cardiac function, laboratory tests and clinical characteristic in cardiomyopathy patients with diastolic dysfunction after consumption of green tea extract.

Methods: 12 cardiomyopathy patients with diastolic dysfunction were submitted to clinical examination, echocardiography, electrography and laboratory testing before and after daily consumption of GTE capsules containing 652.5 mg epigallocatechin-3-gallate for at least 6 months.

Results: A significant decrease of isovolumetric relaxation time (IVRT), increase of left ventricle end diastolic volume (LVEDV) and stroke volume (SV) by echocardiography and decrease of brain natriuretic peptide (BNP) were observed after a at least 6-month period of GTE consumption. Left ventricular ejection fraction, left ventricular wall thickness, biatrial dimension by echocardiography remained unchanged.

Conclusion: This observational study supports that EGCG may have a potential effect on improving the impaired relaxation in pediatric cardiomyopathy patients with diastolic dysfunction.

jietian@cqmu.edu.cn

Notes: