Rowan Walsh et al., Cardiovasc Pharm Open Access 2018, Volume 7
DOI: 10.4172/2329-6607-C1-006

Utility of cardiac magnetic resonace imaging in the diagnosis of left ventricular noncompaction in patients with left ventricular hypertrabeculation diagnosed initially using echocardiography

Rowan Walsh, Jennifer Pak, Jason Hernandez and **Mark Michael**
Department of Pediatric Cardiology Children's Hospital of New Jersey, USA

Background: Left ventricular noncompaction (LVNC) is an uncommon form of progressive cardiomyopathy. It has been associated with an inceased risk of sudden death Left ventricular hypertrabeculation (LVHT) is commonly reported on echocardiography. LVHT may be seen in all age groups and is often noted on the echocardiograms of young athletes. The current study was undertaken to assess the CMRI results on patients who are referred for evaluation of LVHT and to assess whether the echocardiographic diagnosis changes based on this additional imaging modality.

Method: The Pediatric Echocardiography Laboratory and the Pediatric CMRI database were reviewed between 2012 and 2017 to identify patients with LVHT, defined on echocardiogram, who were referred for CMRI with at the Children's Hospital of New Jersey. Data analysis was performed on SPSS Version 24. LVNC was defined as a noncompacted to compacted myocardium ration of >2:1.

Results: 17 with LVHT were referred for CMRI. 23.5% were found to have LV noncompaction on MRI, 52.9% were found to have LV dilation. No patients had delayed myocardial enhancement, and 11.8% were found to have LV hypertrophy. The mean LV volume for all subjects was 99.7 mL/m2, with standard deviation of 11.8 mL/m2.

Conclusion: CMRI may lead to an increase in the diagnosis of LVNC in patients with LVHT on echocardiography. LVHT can be a normal variant in a subset of the population. Patients with LVHT may have an increased incidence of LV dilation and therefore when screening athletic patients caution should be exercised in over diagnosing LVNC.

Biography

Rowan Walsh is a graduate of University College Cork, Ireland in 1997. Following a year of research at The Children's Hospital of New York, he completed his Pediatric Residency at Westchester Medical Center, New York in 2004 and a Pediatric Cardiology Fellowship at Long Island Jewish Medical Center, New York in 2007. He subsequently undertook further training in Cardiac Magnetic Resonance Imaging at Children's Hospital Boston, MA USA. Dr Walsh currently serves as the Director of Cardiac Imaging at the Children's Hospital of New Jersey, NJ USA. Dr Walsh has published in several international journals as well as recent abstract presentations at international conferences.

rowan.walsh@rwjbh.org

Notes: