The Authors Reply

Mordi, Ify; Dawson, Dana

Published in:
JACC. Cardiovascular Imaging

DOI:
10.1016/j.jcmg.2017.11.004

Publication date:
2018

Reply to Letter: Atrial Strain Assessment in Left Ventricular Diastolic Dysfunction by Backhaus et al.

Ify R Mordi MD,[1] Dana K Dawson DM, DPhil[2]

1. Division of Molecular and Clinical Medicine, University of Dundee, Ninewells Hospital and Medical School, Dundee, United Kingdom
2. School of Medicine and Dentistry, University of Aberdeen, Aberdeen, United Kingdom

Address for Correspondence

Dr Ify R Mordi

Division of Molecular and Clinical Medicine

University of Dundee

Dundee

United Kingdom, DD1 9SY

Email: i.mordi@dundee.ac.uk

Telephone: 01382 383106

Fax: +44(0)1382 383259

IM is supported by a NHS Education for Scotland/Chief Scientist Office Post-Doctoral Clinical Lectureship (PCL/17/07).

We report no additional conflicts of interest to our original paper.

We thank Drs. Backhaus and Schuster for their interest in our study.**{** ADDIN EN.CITE **{** ADDIN EN.CITE.DATA **}}** As they state, a multiparametric approach to diagnosis of heart failure with preserved ejection fraction (HFpEF) will undoubtedly help our understanding of the HFpEF phenotype, allowing us to improve our treatment options.

We agree that there is increasing evidence to support the theory that the atrium is not just a simple reservoir but in fact also plays an important role in the pathophysiology of HFpEF. In addition to the studies Drs. Backhaus and Schuster identify, other recent studies confirm that left atrial longitudinal strain is reduced in patients with HFpEF.**{** ADDIN EN.CITE <EndNote><Cite><Author>Singh</Author><Year>2017</Year><RecNum>10659</RecNum><DisplayText>(2)</DisplayText><record><rec-number>10659</rec-number><foreign-keys><key app="EN" db-id="evavx2xs10z2p8evt565vwzrspdtdw099wvr" timestamp="1508622334">10659</key></foreign-keys><ref-type name="Journal Article">17</ref-type><contributors><authors><author>Singh, A.</author><author>Addetia, K.</author><author>Maffessanti, F.</author><author>Mor-Avi, V.</author><author>Lang, R. M.</author></authors></contributors><auth-address>Section of Cardiology, Department of Medicine, University of Chicago Medical Center, Chicago, Illinois.
Section of Cardiology, Department of Medicine, University of Chicago Medical Center, Chicago, Illinois. Electronic address: rlang@bsd.uchicago.edu.</auth-address><titles><title>LA Strain for Categorization of LV Diastolic Dysfunction</title><secondary-title>JACC Cardiovasc Imaging</secondary-title></titles><periodical><full-title>Jacc: Cardiovascular Imaging</full-title><abbr-1>JACC Cardiovasc Imaging</abbr-1></periodical><pages>735-743</pages><volume>10</volume><number>7</number><keywords><keyword>diastolic function</keyword><keyword>left atrial strain</keyword><keyword>left atrium</keyword><keyword>myocardial strain</keyword></keywords><dates><year>2017</year><pub-dates><date>Jul</date></pub-dates></dates><isbn>1876-7591 (Electronic)
1876-7591 (Linking)</isbn><accession-

num>28017389</accession-num><urls><related-urls><url>http://www.ncbi.nlm.nih.gov/pubmed/28017389</url></related-urls></urls><electronic-resource-num>10.1016/j.jcmg.2016.08.014</electronic-resource-num></record></Cite></EndNote>**}** It is important to note however, that in a sub-study of the Treatment of Preserved Cardiac Function Heart Failure with an Aldosterone Antagonist (TOPCAT) trial, LA dysfunction was associated with poorer prognosis however this was not independent of left ventricular parameters.**{** ADDIN EN.CITE **{** ADDIN EN.CITE.DATA **}}** Larger studies are required to determine whether LA deformation is truly an independent predictor of outcome in HFpEF or whether it is simply a reflection of ventricular systolic and diastolic dysfunction.

The addition of echocardiographic assessment during exercise would certainly have provided further insights into the differentiation of HFpEF patients and those with hypertensive heart disease. Indeed, often the symptomatic limitation is only apparent on exercise, and one strength of our study was the use of cardio-pulmonary exercise testing to specifically identify truly symptomatic patients. Exercise echo parameters such as E/E' and estimated pulmonary artery pressures may also have prognostic utility in HFpEF patients.**{** ADDIN EN.CITE **{** ADDIN EN.CITE.DATA **}}**

The editorial by Dr Kosmala which accompanies our study proposes a multiparametric approach to diagnosis and investigation of patients with HFpEF.**{** ADDIN EN.CITE <EndNote><Cite><Author>Kosmala</Author><Year>2017</Year><RecNum>10656</RecNum><DisplayText>(5)</DisplayText><record><rec-number>10656</rec-number><foreign-keys><key app="EN" db-id="evavx2xs10z2p8evt565vwzrspdtdw099wvr" timestamp="1508621075">10656</key></foreign-keys><ref-type name="Journal Article">17</ref-type><contributors><authors><author>Kosmala, W.</author></authors></contributors><auth-address>Cardiology Department, Wroclaw Medical University, Wroclaw, Poland. Electronic address: wojciech.kosmala@umed.wroc.pl.</auth-address><titles><title>Diagnosing HFpEF: On Track at Last?</title><secondary-title>JACC Cardiovasc Imaging</secondary-title></titles><periodical><full-title>Jacc: Cardiovascular Imaging</full-

title><abbr-1>JACC Cardiovasc Imaging</abbr-1></periodical><keywords><keyword>T(1) mapping</keyword><keyword>biomarkers</keyword><keyword>exercise stress echocardiography</keyword><keyword>heart failure with preserved ejection fraction</keyword><keyword>myocardial deformation</keyword></keywords><dates><year>2017</year><pub-dates><date>Aug 11</date></pub-dates></dates><isbn>1876-7591 (Electronic)
1876-7591 (Linking)</isbn><accession-num>28823738</accession-num><urls><related-urls><url>http://www.ncbi.nlm.nih.gov/pubmed/28823738</url></related-urls></urls><electronic-resource-num>10.1016/j.jcmg.2017.05.024</electronic-resource-num></record></Cite></EndNote>}
We agree that larger studies are required using a multiparametric approach, and only by undertaking these will we be able to fully understand and characterise the HFpEF phenotype and begin to identify therapeutic targets.

REFERENCES

{ ADDIN EN.REFLIST **}**