Response to reviewer 227531

Good revision focusing on the differential diagnosis between cardiac sarcoidosis and dilated cardiomyopathy, done by a group with experience on the field I have some concerns; (1) It is important to state the precentage of patients with CS that present LV dysfunction. This population would represent the real challenge. (2) Please state In page 8, Comparison with DCM: If, as it seems, the authors are showing their previously published results, a reference is needed. (3) Please define what you consider a "more aggresive examination for CS" (page 9)

We thank the reviewer for thorough reading, positive overall comments and careful constructive criticism. We have tried to be responsive to the reviewer's comments, and revised the manuscript following the suggestions. We appreciate the review and hope that the reviewer will find our revised manuscript acceptable.

(1) We add number of all patients with CS who had LGE, and the percentage of patients who presented LV dysfunction in the revised manuscript.

Page 6, line 6;

We initially enrolled 21 patients with CS who had LGE in the myocardium between 2003 and 2015. Among them, the intra-cardiac and intra-mural distribution of LGE were analyzed in 14 (67%) patients (13 sCS and 1 iCS) who showed reduced LV ejection fraction (LVEF: <50%).

(2) We add the references for our previous studies (below) in the section of "Intra-LV and intra-mural LGE distribution".

Page 7, line 4;

The segment with score 4 was defined as "transmural" distribution[16]. LGE in patients with CS distributed mainly in the basal and mid ventricular septum, but also spread into all LV segments. While in patients with DCM, LGE was localized mostly in the ventricular septum of basal and mid LV[13, 16].

13. Matoh F, Satoh H, Shiraki K, Odagiri K, Saitoh T, Urushida T, Katoh H, Takehara Y, Sakahara H, Hayashi H. The usefulness of delayed enhancement magnetic resonance imaging for diagnosis and evaluation of cardiac function in patients with cardiac sarcodosis. *J Cardiol* 2008; 51: 179-188 [PMID: 18522793 doi: 10.1016/j.jjcc.2008.03.002]

16. Machii M, Satoh H, Shiraki K, Saotome M, Urushida T, Katoh H, Takehara Y, Sakahara H, Ohtani H, Wakabayashi Y, Ukigai H, Tawarahara K, Hayashi H: Distribution of late gadolinium enhancement in end-stage hypertrophic cardiomyopathy and dilated

cardiomyopathy : differential diagnosis and prediction of cardiac outcome. *Magn Reson Imaging* 2014; 32(2): 118-124 [PMID:24315973 doi: org/10.1016/ j.mri.2013.10.011]

(3) We add examples of aggressive examination in the revised manuscript.

Page 9, line 7;

Although the mechanisms of these types of LGE distribution remain unknown, more aggressive examination for CS such as serological tests, ^{67}Ga-SPECT and FDG-PET should be considered, when patients with reduced LVEF showed diffuse and characteristic features of LGE distribution.

Response to reviewer 1594061

LGE on CMR represents irreversible damage to the areas of heart involved, no matter what the etiiological factors are. This comparison of 14 CS with 30 DCM subjects is helpful in identifying typical patterns of LGE in cardiac sarcoidosis. The CMR and LGE patterns cannot substitute for tissue diagnosis of sarcoidosis. Nevertheless, it is important to document these findings while we move to assessing if absolute need for CMR in the diagnosis and management of cardiac sarcoidosis.

We thank the reviewer for thorough reading and positive overall comments. We appreciate the review and hope that the reviewer will find our revised manuscript acceptable.

Response to reviewer 1593993

The authors reviewed data on cardiac sarcoidosis and magnetic ressonance imaging and compared with that of dilated cardiomyopathy. As a major comment, I would present the study as a classical manuscript: Introduction, methods, results and discussion. I would leave for the discussion the description of studies with cardiac MRI. That would be less confussing for the reader.

We thank the reviewer for thorough reading, positive overall comments and careful constructive criticism. As the reviewer mentioned, the classical type of formatting may be more suitable. However, since WJC specified the format of manuscript as “Diagnostic Advances”, we keep the format of initial version. For avoiding confusion for the readers, we omit the section “CMR and other imaging modalities in CS“, and briefly mentioned the contents in “Discussion” of the revised manuscript. We appreciate the review and hope that the reviewer will understand the situation and find our revised

manuscript acceptable.

Response to reviewer 2446694

The authors reviewed the differences in late enhancement of MRI in patients with cardiac sarcoidosis (CS) and dilated cardiomyopathy (DCM), including their own data. This paper seems to be interesting and educative. I have no questions and requests.

We thank the reviewer for thorough reading and positive overall comments. We appreciate the review and hope that the reviewer will find our revised manuscript acceptable.