Reviewer's report

Title: Hypercholesterolemia and Myocardial Function Evaluated Via Tissue Doppler Imaging Jack Rubinstein M.D+, Augusta Pelosi DVM*, Ameeth Vedre M.D**, Pavan Kotaru M.D**, George S. Abela M.D., M.Sc, F.A.C.C** +From the Department of Internal Medicine, Division of Cardiovascular Diseases, University of Cincinnati, Cincinnati, OH * From the College of Veterinary Medicine, Small Animal Clinical Sciences, Michigan State University, East Lansing, MI **From the Department of Medicine, Division of Michigan State University, B 208 Clinical Center, East Lansing, MI 48824 Support was provided in part from Merck-Schering/Plough, Michigan State University (IRGP147) and Sparrow Hospital, Lansing, MI Short title: Hypercholesterolemia and Myocardial Dysfunction Key words: Hypercholesterolemia, Myocardial Dysfunction, Tissue Doppler Imaging Abstract word count: 241 Total word count: 2066 Tables: 2 Figures: 1 Conflicts of Interest: Grant from Merck-Schering/Plough

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Reviewer: Rosa Sicari

Reviewer's report:

This is an interesting study demonstrating in an experimental model of hypercholesterolemic rabbit the impairment of longitudinal function, global LV function and diastolic function when compared to the control, group. The methodology is appropriate and the results are interesting.

1. The impact of hypercholesterolemia on microvascular function has been assessed in several studies and has been hypothesized as one of the mechanisms underlying the development of LV dysfunction. Please discuss it.
2. The correlation between E/A'; E/E' and S', although statistically significant are weak Authors should tone down their conclusions.
3. In the data reported in graph format, ezetimide does not seem to have any considerable effect on systolic and diastolic function. Please comment.
4. Authors should report the inter and intra-reader variability of the parameters under investigation. Please also report the reasons why in 3 rabbits echo images were not obtained.
5. It would be interesting if authors could upload images of 3 samples under investigation.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

'I declare that I have no competing interests'