Reviewer’s report

Title: The Influence of Real-Time Blood Glucose Levels on Left Ventricular Myocardial Strain and Strain Rate in Pediatric Patients with Type 1 Diabetes Mellitus - a Speckle Tracking Echocardiography Study

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Reviewer: D Tsiapras

Reviewer’s report:

The study "The Influence of Real-Time Blood Glucose Levels on Left Ventricular Myocardial Strain and Strain Rate in Pediatric Patients with Type 1 Diabetes Mellitus - a Speckle Tracking Echocardiography Study" is a well conducted study with some interesting findings and conclusion. It is fact that studying diabetic patients we keep in our minds HbA1C as the predominant parameter showing the metabolic status of the patient. Perhaps, according to this study findings, myocardial contractility may be influenced by temporal variations of patient's metabolic status and new parameters of deformation imaging are sensitive enough to detect such subtle variations. However, as in the limitation of the study section is described, the prognostic value of those findings are unknown and further studies are needed. Furthermore, it would be interesting to cross-check these differences in myocardial contractility indexes detected in different blood glucose levels providing data of repetitive studies of the same patients in different glucose levels. Until now the conclusions of the study give just preliminary indications, very interesting but weak. More studies are really needed to establish the value of real time glucose measurements in evaluating myocardial contractile status.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
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Yes

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Yes

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