Author's response to reviews

Title: Mitral Valve Analysis Adding a Virtual Semi-Transparent Annulus Plane for Improved Visualization of Prolapsing Segments

Authors:

Karl A Dumont MD (kardum@ous-hf.no)
Jørn S Karlsen MSc (jornskaa@gmail.com)
Thomas Helle-Valle MD PhD (thomhell@medisin.uio.no)
Arnt E Fiane MD PhD (arnt.fiane@ous-hf.no)
Runar Lundblad MD PhD (runar.lundblad@gmail.com)
Stig Urheim MD PhD (stig.urheim@rikshospitalet.no)

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Dear Editors,

Please find enclosed the manuscript: “Mitral Valve Analysis Adding a Virtual Semi-Transparent Annulus Plane for Improved Visualization of Prolapsing Segments” by Dumont et al. To our knowledge, this is the first study describing use of a virtual mitral annulus plane by 3D echocardiography presented on a holographic display for more precise localization and potential quantification of prolapsing leaflet tissue in mitral valve disease. We have recently demonstrated the feasibility of analyzing 3D echo of the mitral valve on the holographic display in your Journal (Beitnes et al. Int J Cardiovasc Imaging. 2014 Nov 13. [Epub ahead of print]). The present study is an extension of the study by Beitnes et al., taking advantage of true three-dimensional presentation of a complex structure as the mitral valve. We have demonstrated that the virtual semitransparent plane very clearly shows the extension of the prolapsing tissue that crosses the annulus plane (Figures 5 and 6) with high accuracy and precision by two observers when compared with visual inspection during surgery. We believe the method may also improve the diagnostic accuracy of on-table quality control after mitral valve repair and thereby improve repair patency in the future.
The paper is not under consideration elsewhere, none of the paper’s contents have been previously published, all authors have read and approved the manuscript and the full disclosure of any potential conflict of interest.

We hope and believe that this manuscript may be of interest to your readers.

Best Regards

Karl-Andreas Dumont, MD

Corresponding Author