**COMPARISON OF THE 2009 AND 2016 AMERICAN SOCIETY OF ECHOCARDIOGRAPHY(ASE) GUIDELINES FOR DIASTOLOGY ASSESSMENT**

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**Introduction:** Assessing left ventricular (LV) diastolic function is a fundamental component in the diagnostic evaluation of echocardiography. Grading diastology is complex process and entails multivariable integration. In 2016, the American Society of Echocardiography (ASE) revised the 2009 LV diastolic function guidelines in effort to simplify this process. The study objective is to assess the impact of this guideline update on diastology grading.

**Methods:** This study was a single center, retrospective analysis of 200 randomly selected transthoracic echocardiograms (TTE). Data were collected on TTE variables: LV ejection fraction (EF), mitral inflow peak E velocity, peak A velocity, E/A ratio, deceleration time, mitral valve tissue doppler derived medial and lateral e’, average E/e’, peak tricuspid regurgitation (TR) velocity, left atrial (LA) indexed end systolic volume. Diastology was interpreted using old and new guidelines on all TTEs. TTE studies with preserved LVEF (>50%) and reduced LVEF (<50%) were grouped and independently assessed for change in diastolic grading.

**Results:** 139 TTEs with preserved EF and 61 with reduced EF were reviewed. 35 TTEs (19 reduced EF; 16 preserved EF) were excluded from analysis as they met exclusion criteria. With preserved LVEF, the proportion of diastolic grading (2009 to 2016 guidelines) were as follows: 26% to 60% normal diastology; 45% to 4% grade 1 diastolic dysfunction (DD); 23% to 12% grade 2 DD; 6% to 5% grade 3 DD; 0 to 19% indeterminate. 52% of TTEs with indeterminate diastology had abnormal tissue doppler and peak TR velocity >2.8m/sec with normal E/e’ and indexed LA volume. Diastology assessment in reduced LVEF group: 42% to 49% grade 1 DD; 38% to 29% grade 2 DD; 20% to 20% grade 3 DD; 0 to 2% indeterminate.

**Conclusion:** Implementation of the new diastology guidelines significantly increased the proportional grading of TTEs with normal and indeterminate diastolic function. While the 2016 guideline was aimed to streamline diastology grading, the increased indeterminate diastology classification may pose further challenges in study interpretation and clinical management.