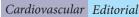


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Simple Tools to Detect Diastolic Dysfunction

Mira Govindarajan¹

¹Department of Cardiodiabetology, Safeguard Family, Chennai, Tamil Nadu, India.

*Corresponding author:

Mira Govindarajan, Department of Cardiodiabetology, Safeguard Family, Chennai, Tamil Nadu,

miragdoc178@gmail.com

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The above article is pertinent both from a clinical and academic perspective for the following

- It reinstates the importance of the electrocardiogram (ECG) in our day-to-day clinical practice.[1]
- It gives us an additional tool to identify diastolic dysfunction.^[2]
- It highlights that we should be aware of the gender differentials while interpreting the ECG. We should, furthermore, be conscious of the difference in the way hypertension presents and progresses in men and women.

With the advent of echocardiogram, the utility of ECG in assessing the cardiac chambers diminished. Indeed, in practice, most of us use the ECG to study arrhythmia, ischemia, and electrolyte abnormalities. The advantage of echocardiography as a tool to study systolic and diastolic function became manifest.

The assessment of diastolic function on echocardiography could be qualitative at times. There is a discrepancy between the E/A ratios by conventional Doppler at the LV inflow with other parameters such as the deceleration time and the isovolumetric relaxation time. [3]

Furthermore, correlation with tissue Doppler introduces additional elements of mismatch. As a thumb rule in such cases, we follow the E/E' to determine diastolic dysfunction. This could be more problematic in newly detected hypertensives where diastolic dysfunction is in its incipience.

The parameters identified on the ECG in this study such as the P wave configuration, QRS widening, and ST-T changes[4] could add value in such cases. As we practice it in large number of cases, we could standardize these for routine use.

We have found gender differences in the pattern of cardiac disease, [5] in the propensity for these disorders to be diagnosed; unfortunately, also in the access to care.

This study shows us that we have to be sensitized to such difference in our interpretation of the various diagnostic modalities as well.

REFERENCES

- Boles U, Enriquez A, Al Ghabra W, Abdollah H, Michael KA. Early changes on the electrocardiogram in hypertension an article from the e-journal of the ESC council for cardiology practice. Eur Soc Cardiol 2015;13:30.
- Van Ommen AM, Kessler EL, Valstar G, Onland-Moret NC, Cramer MJ, Rutten F, et al. Electrocardiographic features of left ventricular diastolic dysfunction and heart failure with preserved ejection fraction: A systematic review. Front Cardiovasc Med 2021;17:772803.

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- Lo Q, Thomas L. Echocardiographic evaluation of diastolic heart failure. Australas J Ultrasound Med 2010;13:14-26.
- Raushan Newaz1 AS, Huda SQ, Monowwar Ali SM, Maula MG, Islam S, Mohammad AS. Electrocardiographic changes in different grades of hypertensive patients: Experience of 400 Cases in Bangladesh. J Sci Found 2016;14:1728-7855.
- Gillis EE, Sullivan JC. Sex differences in hypertension recent advances. Hypertension 2016;68:1322-7.

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