The Role of Speckle Tracking in the Evaluation of Cardiac Amyloidosis

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Male patient, 62 years old, was hospitalized due to decompensated heart failure. Echocardiogram was performed and demonstrated biatrial dilation, left ventricle with normal dimensions, borderline wall thicknesses without granular sparkling, moderately impaired systolic function (ejection fraction 40%) and diastolic function not assessable (pacemaker lead implanted due to severe atrioventricular conduction disturbances). Assessment of left ventricular longitudinal strain by speckle tracking (Figure 1A) showed low global longitudinal strain value (-10%) with worse longitudinal strain at the base and relatively well-preserved apical strain, a typical pattern of left ventricular infiltration due to amyloidosis. Endomyocardial biopsy confirmed diagnosis of cardiac amyloidosis (Figure 1B-C).

Authors' contributions

Research creation and design: Pivatto Júnior F, Machado VH, Santos ABS; Data acquisition: Pivatto Júnior F, Machado VH, Santos ABS; Data analysis and interpretation: Pivatto Júnior F, Machado VH, Santos ABS; Manuscript drafting: Pivatto Júnior F, Machado VH, Santos ABS; Critical review of the manuscript as to important intellectual content: Pivatto Júnior F, Machado VH, Santos ABS.

Potential Conflicts of Interests

There are no relevant conflicts of interests.

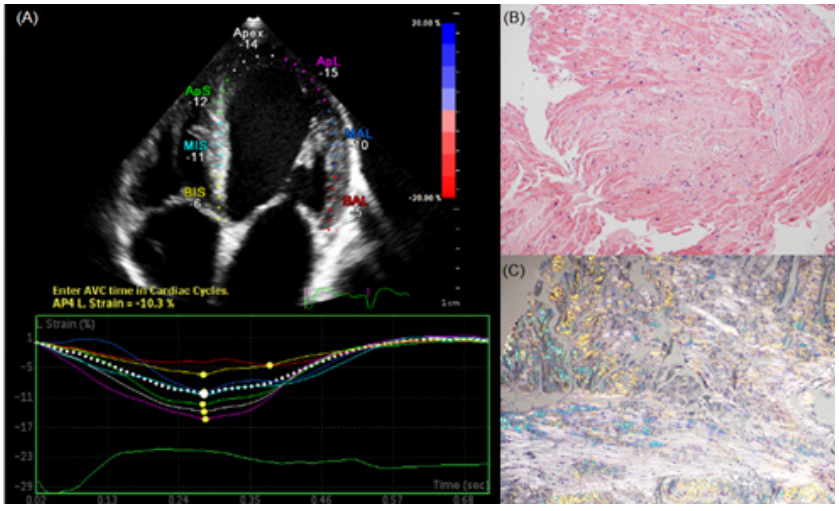

Figure 1 – *Assessment of left ventricular longitudinal strain by speckle tracking (A). Endomyocardial biopsy revealing dense eosinophilic amorphous material deposits between the fibers (B), which, after staining with Congo red, showed birefringence under polarized light (C).*

Keywords

Amyloidosis; Heart Failure; Myocardium/physiopathology; Biopsy; Echocardiography.

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