



Cardiac amyloidosis – a significant blind spot of the H₂FPEF score

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Background

Cardiac amyloidosis (CA) often presents as heart failure with preserved ejection fraction (HFpEF). The recently published H₂FPEF score, which consist of clinical and echocardiographic parameters aims to assess the probability of HFpEF in patients with dyspnea. We aimed to investigate the diagnostic utility of the H₂FPEF score in patients with confirmed HFpEF, cardiac transthyretin (ATTR), and light chain (AL) amyloidosis.

Materials & Methods

H₂FPEF scores were calculated for HFpEF, ATTR, as well as AL amyloidosis patients and divided into low (0-1 points), intermediate (2-5 points), and high (6-9 points) score ranges. Low score ranges allow a rule-out of HF, while high score ranges allow a rule-in. Patients in the intermediate score range would need to undergo further diagnostic assessment.

Results

187 (100 HFpEF, 87 CA) patients were included into our analyses. Median H₂FPEF scores were highest among HFpEF (5 points) patients, followed by ATTR (4 points), and AL CA (3 points). Low H₂FPEF scores were only found among patients in the AL cohort (29.4%), but not among HFpEF or ATTR patients (<0.001). The majority of patients, irrespective of disease entity were in the intermediate score range (HFpEF: 80.0% ATTR: 94.3%, AL: 67.9%; p=0.006). High scores were most often found among HFpEF patients (20.0%), followed by ATTR (5.7%) and AL (2.9%), (p=0.007)].

Conclusion

The H₂FPEF score should be used with caution, as there is not only a significant overlap between HFpEF and CA patients, but also 29.4% of AL CA patients would have been misdiagnosed.

