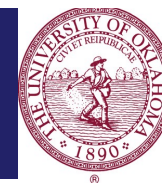




Effect of Therapies on Quality of Life in Heart Failure with Reduced Ejection Fraction: A Systematic Review and Meta-analysis

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Introduction

Minnesota Living with Heart Failure (MLWHF) questionnaire is a validated tool to assess quality of life in patients with heart failure with reduced ejection fraction (HFrEF)

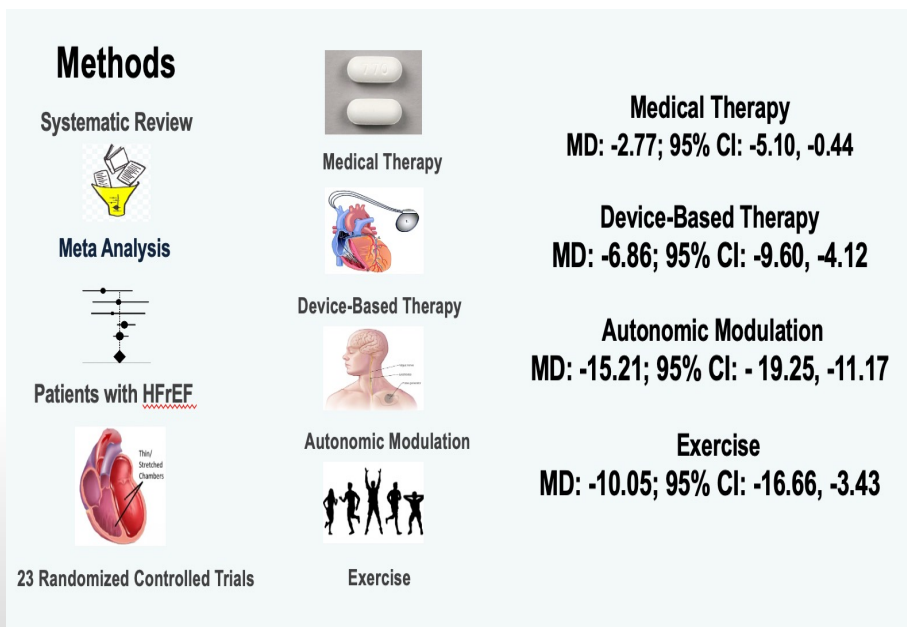
Hypothesis

We performed this systematic review and meta-analysis to evaluate the effect of heart failure therapies on improvement in MLWHF

Methods

- We conducted a systematic search of MEDLINE and EMBASE for randomized controlled trials (RCTs) measuring MLWHF at baseline and follow-up in patients with HFrEF across intervention and control arms
- Primary outcome was improvement in MLWHF at follow-up
- Meta-analysis was stratified in groups based on medical therapy, device-based therapy (cardiac resynchronization therapy and cardiac contractility modulation), autonomic modulation (vagus nerve stimulation and baroreflex activation therapy), and exercise
- Mean difference (MD) with 95% Confidence Interval (CI) were reported across multiple studies included in meta-analysis

Summary of Improvement in MLWHF



Drug based therapy, Device-based therapy, Autonomic modulation, and Exercise are associated with improvement in quality of life assessed by MLWHF questionnaire in patients with heart failure with reduced ejection fraction

Results

- A total of 23 studies met the inclusion criteria for meta-analysis
- Statistical analysis showed significant improvement in MLWHF at follow-up for drug-based therapy (MD: -2.77; 95% CI: -5.10, -0.44), device-based therapy (MD: -6.86; 95% CI: -9.60, -4.12), autonomic modulation (MD: -15.21; 95% CI: -19.25, -11.17), and exercise group (MD: -10.05; 95% CI: -16.66, -3.43)
- Sub-group analyses based on various treatment modalities showed statistically significant improvement in MLWHF at follow-up for cardiac resynchronization therapy (MD: -8.11; 95% CI: -11.88, -4.33), cardiac contractility modulation (MD: -5.47; 95% CI: -9.46, -1.49), and baroreflex activation therapy (MD: -19.79; 95% CI: -24.90, -14.67)

Disclosures

The Authors do not have relevant conflicts of interest to disclose.