Heart Failure and Cardiomyopathies

BENEFITS OF PULMONARY ARTERY PRESSURE MONITORING EXTEND TO REDUCTION OF ALL-CAUSE REHOSPITALIZATION

Oral Contributions
Room 146 B
Sunday, March 30, 2014, 8:18 a.m.-8:30 a.m.

Session Title: Update from Clinical Trials in Heart Failure: Year in Review
Abstract Category: 12. Heart Failure and Cardiomyopathies: Clinical
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Background: Congestion is the primary reason for heart failure hospitalizations (HFH). Recent telemonitoring strategies to detect congestion and prevent HFH using weights have not improved patient outcomes. The CHAMPION trial found significant reductions in HFH in patients whose syndrome was managed using pulmonary artery pressure (PAP) from an implantable hemodynamic monitor (IHM). While hemodynamic guided management reduced HFH, the impact on other causes of rehospitalizations is unknown.

Methods: CHAMPION was a prospective, randomized, single-blind study in previously hospitalized patients with NYHA class III HF. 550 patients were implanted with the IHM device and randomized to HF medical management with access to PAP (270) or to usual management (280). Average patient follow-up was 18 months. All hospitalizations and deaths were adjudicated by a blinded committee.

Results: Total rehospitalizations were significantly reduced with IHM-guided care although only 38% were for primary HF diagnosis. For 100 patients treated, 29 events of death or rehospitalizations could be prevented per year.

Conclusion: Patient management enhanced through PAP monitoring not only reduces HFH, but also leads to significant reductions in death and all cause rehospitalizations.

<table>
<thead>
<tr>
<th>Clinical Endpoint</th>
<th>Treatment (n=270)</th>
<th>Control (n=280)</th>
<th>Absolute Reduction</th>
<th>Relative Reduction Hazard Ratio (95% CI)</th>
<th>p-value</th>
<th>Number Needed to Treat (NNT) to Prevent 1 Event Per Year</th>
<th>Events Reduced Per Year Per 100 Patients Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF Rehospitalizations</td>
<td>182</td>
<td>279</td>
<td>97</td>
<td>0.67 (0.55 - 0.80)</td>
<td>&lt;0.0001</td>
<td>4</td>
<td>23</td>
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<tr>
<td>All Cause Rehospitalizations</td>
<td>554</td>
<td>672</td>
<td>118</td>
<td>0.84 (0.75 - 0.95)</td>
<td>0.0032</td>
<td>4</td>
<td>26</td>
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<tr>
<td>Death or All Cause Rehospitalizations</td>
<td>604</td>
<td>736</td>
<td>132</td>
<td>0.84 (0.76 - 0.94)</td>
<td>0.0017</td>
<td>3</td>
<td>29</td>
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