Palliative Care in Congestive Heart Failure

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Case Presentation

• 89 yo F with CHF, CAD s/p MI, COPD, CKD, and mild dementia presenting on 2/22 to the RIH ED from SNF with SOB and altered mental status

• Recently treated for PNA at SNF with PO abx due to low-grade temp, cough, and CXR findings

• In ED, placed on BiPAP; initial SBP 50s
Case Presentation

• PMHx:
  – CHF with EF < 20%, dilated LV, and severe global hypokinesis
  – CAD s/p MI
  – Hyperlipidemia
  – History of CVA
  – History of DVT and PE
  – COPD
  – GI Bleed
  – Chronic kidney disease
  – Polymyalgia rheumatica
  – Mild cognitive impairment
  – Depression and insomnia

• Meds: Aspirin, metoprolol, losartan, simvastatin, furosemide, pantoprazole, sertraline, and trazodone
Recent Hospitalizations

• 1/05 → 1/14
  – Admitted to the CCU for respiratory distress and hypotension

• 2/01 → 2/05
  – Admitted to the CCU for SOB and increasing lower extremity edema

• 2/22 →
Heart Failure

- Common and life-limiting illness with increasing prevalence
- One-third or more HF patients die within a year of a hospitalization for HF
- Average life expectancy is < 6 years
- However, course is variable
Identification of End-Stage HF

• Patients have marked symptoms at rest or with minimal exertion despite maximal medical therapy
  – ACC/AHA Stages C and D
  – NYHA Classes III and IV

• Frequent hospitalizations with volume overload
Refractory HF

• Evaluate the HF patient for high sodium intake, medication noncompliance, sleep-disordered breathing, ischemia, or deleterious medications

• Specialized strategies include continuous IV inotropes, mechanical circulatory support, and transplantation
Estimation of Prognosis

• Several tools available to assist clinicians with prognostic estimates
  – EFFECT Model
  – Heart Failure Survival Score
  – Seattle Heart Failure Model
Predictors of Survival in Systolic HF

• Functional class
  – NYHA class, 6 minute walk test, peak VO$_2$
• LVEF
• Concomitant diastolic dysfunction
• Right ventricular function
• Neurohumoral activation
  – Hyponatremia, ↑BNP, tachycardia
• Reduced tissue perfusion
Disease Course

• Severe functional compromise with limitations in ADLs ≥ 1 year prior to death

• Symptoms include dyspnea, fatigue, difficulty walking, edema, pain, and anorexia
Psychological Symptoms

• Social isolation
• Anxiety
• Low mood
• Insomnia
• Coping with uncertainty
Symptom management

• Optimization of HF therapy, even after the presence of end-stage disease established and the goal of therapy is palliation of symptoms

• ACEIs, ARBs, BBs, and aldosterone antagonists prolong survival and alleviate symptoms
## Symptom management

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Causes/Contributors</th>
<th>Treatments/Tips</th>
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| Fatigue          | • ↓ CO  
• ↑ neurohormones  
• Sleep-disordered breathing  
• Deconditioning  
• Depression       | • Optimize HF medications  
• Dietary compliance  
• CPAP  
• Opioids  
• Caffeine  
• Antidepressant medications |
| Dyspnea          | • Congestion  
• Hypoxic ventilatory drive                                                       | • Loop diuretics, nitrates  
• Opioids |
| Pain             | Multifactorial                                                                   | Topical treatments, PT, opioids                                                  |
| Emotional needs |                                                                                   | Supportive counseling, antidepressant medications                               |
Communication

- 2009 ACC/AHA chronic HF guidelines recommend discussions with the patient, family, and/or caregiver about quality of life and prognosis
- The life-limiting nature of HF should be acknowledged
- A majority of patients overestimate their life expectancy
Barriers to care

- Cardiologists may not have training, practice, or comfort with end-of-life care issues
- Generalists, geriatricians, and palliative care clinicians may lack knowledge of HF management
- Difficulty identifying when HF patients meet hospice eligibility requirements
Hospice

• Only 10-12% of patients with end-stage HF are enrolled in hospice
• Hospice generally provides oral medication for HF management
• Few provide more complex therapies such as IV inotropes and CPAP
• May not have HF-specific plans of care or protocols for management of ICDs
Case Presentation

- Patient’s daughter expressed frustration with frequent hospitalizations and inadequate symptom relief
- After family discussion, patient was referred to hospice
- Transferred to inpatient hospice unit on 3/02
- Meds at time of discharge included morphine, metoprolol, bumetanide, and sertraline
Improvements

• Improved communication
• Clearer HF referral criteria
• Earlier referral to palliative medicine and hospice programs
• Palliative care staff training in management of HF symptoms
References


