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 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

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 eligibilty 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

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