Congestive Heart Failure with Cardiac Cachexia

Casey Cook
Dr. Charles Peterman

- 85-year old
- Retired physician
- Previous myocardial infarction
- Family history of HTN and CAD
- Diagnosed with CHF 2 years ago
- Collapsed at home and brought to hospital
- Diagnosis: CHF with ascites (fluid in abdominal cavity) and 4+ pedal edema
What is CHF?

• End-stage CVD and weakening of heart muscle (difficulty responding to stress)
• Caused by damage to muscle tissue
  ▫ Primary concern is left ventricle
• 50% of CHF patients are also malnourished
  ▫ Cardiac cachexia
  ▫ Early satiety
  ▫ Impaired nutrient absorption
  ▫ Drug side effects
• Major concerns are sodium and fluid
• Drug-nutrient interactions may become severe
• Requires strict MNT to slow disease progression
Assessment

- 75 kg (176#), 178 cm
  - EER = 1440 kcal /day
- low blood pressure
  - 90/70 mmHg
- Gray skin
- Ascites present, abdomen tender
- 4+ pedal edema
  - Fluid limitation = 1500 mL/day
- Poor appetite, difficulty eating
- 24-hour recall indicates only sips of fluids
- EKG indicates secondary to end-stage CHF
<table>
<thead>
<tr>
<th>Test</th>
<th>Normal</th>
<th>Dr. Peterman 1</th>
<th>Dr. Peterman 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Albumin</strong></td>
<td>3.5-5</td>
<td>2.8 L</td>
<td>2.6 L</td>
</tr>
<tr>
<td><strong>Total protein</strong></td>
<td>6-8</td>
<td>5.8 L</td>
<td>5.5 L</td>
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<tr>
<td><strong>Prealbumin</strong></td>
<td>16-35</td>
<td>15 L</td>
<td>10 L</td>
</tr>
<tr>
<td><strong>Na</strong></td>
<td>136-145</td>
<td>132 L</td>
<td>133 L</td>
</tr>
<tr>
<td><strong>BUN</strong></td>
<td>8-18</td>
<td>32 H</td>
<td>30 H</td>
</tr>
<tr>
<td><strong>Creatinine</strong></td>
<td>0.6-1.2</td>
<td>1.6 H</td>
<td>1.5 H</td>
</tr>
<tr>
<td><strong>Uric acid</strong></td>
<td>4-9</td>
<td>6</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>CPK</strong></td>
<td>55-170</td>
<td>150</td>
<td>200 H</td>
</tr>
<tr>
<td><strong>LDL:HDL</strong></td>
<td>&lt; 3.55</td>
<td>6 H</td>
<td>5.1 H</td>
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**CPK** = creatine phosphokinase
Diagnosis

- Insufficient energy intake (NI-1.4) RT SOB and nausea AEB report from patient’s wife.

- Disordered eating pattern (NI-1.5) RT diminished appetite and difficulty eating AEB cardiac cachexia.
Intervention

- Enteral feeding formula
- EN discontinued due to intolerance, cannot use TPN because of need to restrict fluid
  - Maximize oral intake with soft foods
Monitor/Evaluation

- Monitor size of edema and condition of tissue
  - Continue to restrict fluids
- Check lab values every 2-3 days
- Check weight status daily
However...

- Patient has requested palliative care in a living will
  - Does EN constitute as palliative care?
  - Is a formula packed with nutrients merely reducing the severity of his CHF?
How is Dr. Peterson today?....

...any ideas??
Sad news...
Thank you for your attention...

Any questions??