Observed Behavioral Effects of Medical Treatment for Type B Aortic Dissections

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Objective: Identify possible behavioral effects of treating type B aortic dissections medically.

Methods

- Selected study population of 104 patients with medically treated Type B dissections from 244 initial records
- Constructed database to organize patient demographics, treatments, and to record behavioral effects
- Searched charts and medical records to determine possible behavioral effects
- Constructed histogram displaying frequency of observed behavioral effects, a demographic table, and pie chart displaying percent of patients with behavioral effects

Table 1: This table depicts a summary of the study population demographics

<table>
<thead>
<tr>
<th>Total Patients with Medically Treated Type B Aortic Dissection over 10 years (2004-2014)</th>
<th>104</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number with Behavioral Effects</td>
<td>57</td>
</tr>
<tr>
<td>Number of Males</td>
<td>67</td>
</tr>
<tr>
<td>Number of Females</td>
<td>37</td>
</tr>
<tr>
<td>Age Range</td>
<td>21-94 (73 years)</td>
</tr>
<tr>
<td>Median Age</td>
<td>68 ± 16 years</td>
</tr>
<tr>
<td>Number of Deaths</td>
<td>10</td>
</tr>
</tbody>
</table>

Results

Distribution of Behavioral Effects in Medically Treated Type B Aortic Dissections

- anxiety/restlessness: 38
- nausea: 16
- fatigue: 14
- disorientation: 8
- lightheadedness: 6
- headache: 2
- hallucinations: 2
- "shakes": 1
- slurred/garbled speech: 0
- depression: 0
- syncope: 0

Figure 2: This figure displays the frequency of a given behavioral effect seen in the study population.

Proportion of Behavioral Effects Found versus No Behavioral Effects Found

- Behavioral Effects Found: 45%
- None Found: 55%

Figure 3: This figure depicts the relative amount of patients in which behavioral effects were found, and patients in which no effects were found.

Introduction

- Objective: Identify possible behavioral effects of treating type B aortic dissections medically
- Antihypertensive medications may affect a patient’s behavior through lowering their blood pressure or by directly acting on neurological pathways
- Studies found on antihypertensive medications utilized a small sample population and were over 10 years old
- No studies regarding the behavioral effects of treating Type B dissections were found

Conclusion

- The most frequently observed behavioral effect was anxiety/restlessness
- There were observed behavioral effects in 55% of the patients
- It is possible that behavioral effects are caused secondary to a drop in blood pressure during medical treatment of Type B aortic dissections
- Next steps include determining if drops in blood pressure during treatment correlate with behavioral effects

References


Figure 1: This figure depicts a Type B dissection of the descending aorta.

Figure 2: This figure displays the frequency of a given behavioral effect seen in the study population.

Figure 3: This figure depicts the relative amount of patients in which behavioral effects were found, and patients in which no effects were found.

Figure 4: In this figure the false lumen created by the Type B dissection can clearly be seen.