Does The Extent of Lung Resection Influence Recovery & Analgesic Requirements After Video Assisted Thoracosscopic Surgery

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Background

Video Assisted Thoracoscopic Surgery (VATS)

- Wide spread adoption
- For both major and minor procedures
- Assumed to reduce post-operative pain
- Expedite patient recovery
Study Objectives

- To determine whether the extent of lung resection influences recovery and analgesic requirements after VATS
Study Method

- We reviewed 25 patients who underwent VATS
- Timescale 8 weeks
- Observational study
- Retrospective analysis of prospectively collected data
Classification of procedures

- **Major**
  1. Pneumonectomy
  2. Lobectomy/Wedge resection

- **Minor**
  1. Pleural biopsy
  2. Pneumothorax Surgery
# Results - Demographics and Operative Findings

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>M/F</th>
<th>Age (Years)</th>
<th>Operative Time (Minutes)</th>
<th>3 x Ports %</th>
<th>Regional Block %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major</strong></td>
<td>9</td>
<td>4/5</td>
<td>70 ± 11</td>
<td>169 ± 66</td>
<td>100</td>
<td>77</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td>16</td>
<td>11/5</td>
<td>54 ± 21</td>
<td>67 ± 26</td>
<td>56</td>
<td>19</td>
</tr>
</tbody>
</table>
## Results - Post-operative Analgesia and Recovery

<table>
<thead>
<tr>
<th></th>
<th>PCA %</th>
<th>PCA (hours)</th>
<th>PCA (mls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>100</td>
<td>26 ± 10</td>
<td>17 ± 13.6</td>
</tr>
<tr>
<td>Minor</td>
<td>44</td>
<td>25 ± 14</td>
<td>22 ± 12.5</td>
</tr>
</tbody>
</table>
## Results - Post-operative Analgesia and Recovery

<table>
<thead>
<tr>
<th></th>
<th>Paracetamol (gm)</th>
<th>Opiates (gm)</th>
<th>Walking (days)</th>
<th>Length of stay (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major</strong></td>
<td>12.7 ± 5.8</td>
<td>371 ± 130</td>
<td>2 (1-2)</td>
<td>3 (3-14)</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td>6.3 ± 4.2</td>
<td>181 ± 142</td>
<td>1 (1-3)</td>
<td>1 (1-8)</td>
</tr>
</tbody>
</table>
Conclusions

- Longer post operative length of stay for patients undergoing major VATS
- Little apparent difference in recovery and overall analgesic requirements between patients undergoing major and minor VATS
Recommendations

- Traditional concerns regarding major surgery should not bias practitioners to unnecessarily delay or prolong patients’ rehabilitation following VATS surgery.
Further Work....

- Comparisons based upon patients with similar characteristics for example, age.

- Larger sample sizes are required to ensure the results are statistically significant and allow further sub group analysis.