Pulmonary Embolism Without Deep Venous Thrombosis

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Disclosures

- None

Pulmonary Thrombosis / Embolism

- Embolism from peripheral DVT

Hypothesis

We have noted a subset of patients with PE to have no identifiable source on lower and upper extremity venous duplex (LED and UED). The aim of this study is to characterize those patients and to compare them to those with an identifiable source of PE.

Methods

Retrospective review of 2700 CT angiograms of the chest from 33 months, identification of patients with pulmonary embolism, review of their venous duplexes and electronic medical records.

Results

Pulmonary Embolism on Chest CT Angio

Patients: 230
Women: 152 (66%)
Men: 78 (34%)
Age: 68 ± 16 years
**Results**

230 patients with PE

<table>
<thead>
<tr>
<th>Group</th>
<th># pts</th>
<th>Age (%):</th>
<th>CA (W)</th>
<th>Active CA (%)</th>
<th>ICU stay %</th>
<th>% saddle/main PA</th>
<th>In-Hosp Mort</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>131</td>
<td>18-96 (71)</td>
<td>66</td>
<td>40</td>
<td>24</td>
<td>18</td>
<td>34</td>
</tr>
<tr>
<td>2</td>
<td>53</td>
<td>23-95 (68)</td>
<td>77</td>
<td>39</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>31</td>
<td>50-91 (66)</td>
<td>62</td>
<td>38</td>
<td>29</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>41-92 (68)</td>
<td>53</td>
<td>67</td>
<td>47</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

* P = 0.046

**Conclusion**

There was a statistically significant increased prevalence of malignancy history and active cancer in patients with PE without DVT,

No difference in mortality, ICU and pulmonary embolism load

**Discussion**

- "PE without DVT" Described in large autopsy series as well as retrospective reviews.
- Its pathophysiology and clinical significance is not clear.
- Questions to be answered: Marker for malignancy? Vena cava filters for patients with PE without DVT? Embolization from pelvic veins?
Pathogenesis of idiopathic pulmonary arterial hypertension (iPAH) includes endothelial dysfunction and in situ thrombosis.

Some patients with iPAH have a hypercoagulable phenotype.