Does Supplemental Oxygen Improve Echocardiographic Parameters in Nonhypoxemic Patients With Intermediate-Risk Pulmonary Embolism?

STUDY DESIGN

Pilot study randomly assigned nonhypoxemic stable pulmonary embolism with echocardiographic right ventricle (RV) enlargement to receive anticoagulation for 48 hours with either:

- **Oxygen**
- **Ambient Air**

1° outcome
- Normal RV size after 48 hours

2° efficacy outcomes
- Numerical change in RV/left ventricle (LV) diameter ratio at 48 hours and 7 days

RESULTS

Study was prematurely stopped due to COVID-19 pandemic

<table>
<thead>
<tr>
<th></th>
<th>Oxygen (n=33)</th>
<th>Ambient Air (n=37)</th>
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</thead>
<tbody>
<tr>
<td>Normalization of RV after 48 hours not significant between the groups ($P = .08$)</td>
<td>14 (42.4%)</td>
<td>8 (21.6%)</td>
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<tr>
<td>Change in RV/LV ratio (baseline to 48 hours) was significant</td>
<td>1.28 to 1.01 ($P &lt; .001$)</td>
<td>1.21 to 1.08 ($P &lt; .01$)</td>
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<tr>
<td>Adverse events</td>
<td>None</td>
<td>1 major bleeding 1 death</td>
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In analyses limited by a small cohort, supplemental oxygen did not significantly increase the proportion of patients with nonhypoxemic intermediate-risk pulmonary embolism who normalized their RV/LV ratio after 48 hours. Improvement in some ancillary efficacy outcomes was noted.