Patients with Obstructive Sleep Apnea have Improved Survival Outcomes After In-Hospital Cardiac Arrest Compared to Non OSA Patients.

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BACKGROUND

Obstructive sleep apnea (OSA) is associated with increased risk of cardiac arrhythmia but its association with survival of in-hospital cardiac arrest (IHCA) patients is not known and is not clear if survival of OSA patients between those with ventricular fibrillation (VF) and non-VF IHCA differ.

OBJECTIVES

To assess the association of OSA with mortality in patients with IHCA with VF and non-VF.

METHODS

- Using the Agency for Healthcare Research and Quality (AHRQ) sponsored Nationwide Inpatient Sample database, the largest publicly available all-payer database in the United States, adult patients undergoing resuscitation for IHCA between 2005 to 2008 were identified.
- Patients who had IHCA with a diagnosis of OSA were 1:1 propensity-matched for age, sex and major comorbidities with those without sleep apnea and differences in outcome (in-hospital mortality and length of stay) in patients with VF and non-VF related IHCA was determined.
- All significant variables at the univariate level were included in the multivariate analysis to determine independent predictors of mortality using logistic regression model.

RESULTS

<table>
<thead>
<tr>
<th>Variable</th>
<th>OSA (%)(n=1000)</th>
<th>No OSA (%)(n=1000)</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt; 65</td>
<td>0.0096</td>
<td>0.0096</td>
<td>0.7648</td>
</tr>
<tr>
<td>Male</td>
<td>0.0096</td>
<td>0.0096</td>
<td>0.9999</td>
</tr>
<tr>
<td>COPD</td>
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<td>0.0096</td>
<td>0.9999</td>
</tr>
<tr>
<td>CHF</td>
<td>0.0096</td>
<td>0.0096</td>
<td>0.9999</td>
</tr>
<tr>
<td>MI</td>
<td>0.0096</td>
<td>0.0096</td>
<td>0.9999</td>
</tr>
</tbody>
</table>

CONCLUSION

The overall survival in IHCA is significantly better in patients with OSA compared to non-OSA patients.

 Patients with VF cardiac arrest have better outcomes than non VF related cardiac arrest.

 Mechanisms underlying improved survival outcomes in OSA patients need to be investigated.

DISCLOSURES

All authors have nothing to disclose.