Access to Robotic Assisted Thoracoscopic Surgery in Historically Marginalized Groups at a Rural Tertiary Care Center

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BACKGROUND

Historically marginalized populations, including older, nonwhite, and underinsured patients with lung cancer have been shown to experience diagnostic, therapeutic, and outcome disparities in care.

PURPOSE

While newer techniques in lung cancer surgery, including robotic-assisted thoracoscopy, are becoming more widely available, equity of its use is unknown. The purpose of this study is to determine if these modalities are being equitably utilized.

MATERIALS & METHODS

Retrospective Review: Patients who received lung resection at ECU Health Medical Center between August 2017 – December 2022

Modalities:
- Robotic Assisted Thoracoscopic Surgery
- Video Assisted Thoracoscopic Surgery
- Open Thoracotomy

Operations:
- Pneumonectomy
- Lobectomy
- Wedge Resection

Patients grouped based on age, sex, insurance status, race

Chi Squared and Fisher’s Exact Test used to compare proportion of patients undergoing Robotic surgery vs VATS/Open surgery
P-value = 0.05

RESULTS

<table>
<thead>
<tr>
<th>Group</th>
<th>Robotic (N = 22)</th>
<th>VATS/Open (N = 165)</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority Race</td>
<td>6 (27%)</td>
<td>46 (28%)</td>
<td>0.59</td>
</tr>
<tr>
<td>Female</td>
<td>13 (59%)</td>
<td>82 (50%)</td>
<td>0.28</td>
</tr>
<tr>
<td>Underinsured/uninsured</td>
<td>3 (14%)</td>
<td>28 (17%)</td>
<td>0.49</td>
</tr>
<tr>
<td>&gt;65 years old</td>
<td>15 (68%)</td>
<td>107 (65%)</td>
<td>0.48</td>
</tr>
</tbody>
</table>

*Chi-Square or Fisher’s Exact Test where applicable

VATS - Video-assisted thoracoscopic surgery

DISCUSSION

While disparities in lung cancer care for historically marginalized populations still exist nationally, access to robotic surgery in our population does not seem to follow these trends.

Further multicenter analysis will be necessary to determine if robotic surgery is being equitably utilized in these more vulnerable populations nationwide.

REFERENCES
