1st Place: Long-Term Survival Rate of Transcatheter Aortic Valve Replacement

Caitlin Hoeing

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Long-Term Survival Rate of Transcatheter Aortic Valve Replacement

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**Background**

- Transcatheter aortic valve replacement (TAVR) is a very prevalent procedure for high and moderate risk patients with severe aortic stenosis.
- Minimally invasive → a median sternotomy is not necessary
- Previous studies have found that survival rates for patients on dialysis are significantly lower than regular patients.
- Renal dysfunction affects the outcome of TAVR
- Long-term patient survival is not well known

**Objective**

- This study seeks to evaluate the survival rates of dialytic, chronic kidney disease (CKD), and standard TAVR patients

**Methods**

- Single-center retrospective review of all TAVR patients from 2012-2019 at LVHN
- Specific patient data gathered and assessed through in-house database
- Data was recorded in the unique REDCap database
- Descriptive statistics were used to analyze the significance of patient survival rates

**Results**

- 639 patients total standard patients
  - 150 died (23.47%)
  - Average survival time of 689.59 days (1.89 years)
  - 26 patients were simultaneously on dialysis (9.49%)
  - 11 died (42.31%)
  - Average survival time of 569.55 days (1.56 years)
  - 271 patients had CKD pre-TAVR
  - 68 died (25.46%)
  - Average survival time of 484.08 days (1.33 years)
  - Average length of stay: 4.5 days

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<th>Number of censored</th>
<th>Total sample size</th>
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<td>34</td>
<td>396</td>
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<tr>
<td>1</td>
<td>69</td>
<td>13</td>
<td>219</td>
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<tr>
<td>2</td>
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<td>1</td>
<td>12</td>
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<tr>
<td>Overall</td>
<td>229</td>
<td>38</td>
<td>267</td>
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</tbody>
</table>

**Survival Rates for TAVR Patients**

- Patients coincidingly on dialysis are at **higher risk** for the TAVR procedure.
  - Significant decrease in survival rates for hemodialytic patients compared to CKD and regular patients
  - Long-term survival rates of non-dialysis patients illustrate success for TAVR
  - Future research is encouraged to evaluate long-term outcomes of TAVR over ten years and understand the effects of pre-TAVR risk factors.

**Conclusions**

**References**