Mortality and Co-Morbidities in South Asian Individuals with CKD Compared to White Ethnicities

Session Information

- CKD: Health Services, Disparities, Prevention
  November 02, 2017 | Location: Hall H
  Abstract Time: 10:00 AM - 10:00 AM

Category: Chronic Kidney Disease (Non-Dialysis)

- 307 CKD: Health Services, Disparities, Prevention

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Group or Team Name

- LCC-CKD Cohort

Background

The epidemiology of CKD in South Asian (SA) populations in high-income countries is poorly studied. The Leicester City and County Chronic Kidney Disease (LCC-CKD) cohort has been developed to study this population in comparison to other ethnic groups. To our knowledge no study has compared all-cause mortality in SA subpopulations with CKD compared to other ethnicities.

Methods

Data was collected for LCC-CKD from primary care electronic records. The cohort has 5 years of completed follow-up from 2011 to 2016. Comparison was made between individuals of SA and Whites ethnicities. The groups’ baseline characteristics were compared using t-tests and Chi². Unadjusted and adjusted Cox proportional hazards models were used for comparison of all-cause mortality.
Results

3,887 of 6,133 (63.4%) individuals in the LCC-CKD cohort have an ethnicity code of whom 268 are of SA ethnicity (6.9%). Gender proportions were similar, but mean age and EPI eGFR were lower and ACR higher for SA compared to White ethnicities. diabetes mellitus was more common in SA but clinical cardiovascular disease was less common (see table).

Unadjusted all-cause survival analysis suggested all-causes mortality was 39% lower (HR 0.61, 95% CI 0.46-0.80, p<0.0001) in SA. However, in an adjusted model using the variables listed in the table, SA had similar risk to the White population (HR 0.97, 95% CI 0.71-1.33, p=0.85).

Conclusion

Compared to the White population, SA with CKD are younger with more advanced CKD and more likely to have diabetes. Adjusted all-cause mortality was similar between ethnicity groups. These factors may explain why SA individuals are more likely to progress to endstage renal disease.

Comparison of Cohort Characteristics in South Asian and White Ethncities

<table>
<thead>
<tr>
<th>Variable</th>
<th>South Asian</th>
<th>White</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>268</td>
<td>3,552</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>60.8%</td>
<td>57.1%</td>
<td>0.23</td>
</tr>
<tr>
<td>Age</td>
<td>76.3 (12.0)</td>
<td>84.2 (9.1)</td>
<td></td>
</tr>
<tr>
<td>EPI eGFR</td>
<td>46.8 (11.8)</td>
<td>48.8 (9.9)</td>
<td>0.001</td>
</tr>
<tr>
<td>ACR (mg/mmol)</td>
<td>19.9 (52.4)</td>
<td>10.0 (29.9)</td>
<td></td>
</tr>
<tr>
<td>Hypertension</td>
<td>86.3%</td>
<td>90.3%</td>
<td>0.07</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>55.2%</td>
<td>33.6%</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular Disease</td>
<td>36.2%</td>
<td>44.5%</td>
<td>0.008</td>
</tr>
</tbody>
</table>

*p-values are for comparisons between South Asian and White ethnicities. For continuous variables, mean values are presented with standard deviations in parentheses.*