Abstract 149: Effects of Ethnicity and Prior Depression on Hospital Course and Outcomes in First-Time Stroke Patients

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**Citation**

*Circulation: Cardiovascular Quality and Outcomes* (2016) 9(Suppl 2):A149
INTRODUCTION

Depression can increase risk of stroke and stroke mortality, and can worsen post-stroke outcomes. There is a dearth of research in the Hispanic population, who have a higher burden of disease than non-Hispanic whites and blacks. The goal of this research project was to determine how ethnicity and prior depression affect patient outcomes after first-time stroke.

METHODS

Five hundred cases from Baptist Hospital of Miami’s Get With The Guidelines-Stroke (GWTG) database (9/2014-5/2015) were analyzed. Patients with prior stroke, TIA, MI, or Afib or length of stay > 30d were excluded because these conditions can result in depression (Fig 1.).

RESULTS

Effects of Hispanic ethnicity and prior depression on patient outcomes were analyzed using a nonparametric median test for LOS and chi square analysis for mRS score and disposition.

RESULTS (cont’d)

• Non-Hispanic patients with depression had a marginally significant shorter LOS than the other groups (3.7 d vs. 6.3-6.9 d; p=0.06) (Fig 3); effect lost when NIHSS used as covariate
• Of the 301 patients, 171 (57%) were discharged home
• Hispanic patients were less likely to be discharged home (54%) than non-Hispanic patients (62%), regardless of depression
• Of 279 patients that had a discharge mRS score, 98 (35%) had a good clinical outcome (mRS 0-2)
• Only 25% of Hispanic patients with depression had a good clinical outcome, vs. 30-40% of patients in the other groups (Fig 4)

CONCLUSIONS

There is an effect of ethnicity on disposition and an ethnicity x depression interaction on discharge mRS. Results are marginal likely because of a small sample size in the depression group. Also, GWTG only allows indirect identification of patients with depression. It could be that patients who were discharged on antidepressant medications were prescribed those medications for depression that occurred after the stroke (rather than untreated prior depression).

FUTURE DIRECTION

The same analyses will be carried out using a larger sample size from the Florida-Puerto Rico Collaboration to Reduce Stroke Disparities GWTG database.

Figure 1. Inclusion/Exclusion of Cases

Identification of 30 patients with depression was based on questions found in GWTG (Fig. 2). Descriptive statistics analyzed 301 included subjects on initial characteristics, hospital course, length of stay (LOS), discharge functional status, and discharge disposition.

Figure 2. Identification of Patients who Potentially have Depression

• Prior history of depression
• Admitted on antidepressant medication
• Discharged on antidepressant medication
• More than one of these

* n=30

Table 1. Patient Treatment Characteristics

<table>
<thead>
<tr>
<th>Length of stay</th>
<th>NIHSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic, No Depression</td>
<td>57</td>
</tr>
<tr>
<td>Hispanic, Depression</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 3. Patient Disposition

<table>
<thead>
<tr>
<th>Disposition</th>
<th>Hispanic, No Depression</th>
<th>Hispanic, Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>30 (10%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Rehab</td>
<td>66 (22%)</td>
<td>12 (6%)</td>
</tr>
<tr>
<td>SNF</td>
<td>48 (16%)</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>Hospice</td>
<td>10 (3%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Expired</td>
<td>20 (6%)</td>
<td>2 (1%)</td>
</tr>
</tbody>
</table>

Figure 3. Effects of Ethnicity, Depression, and Initial NIHSS on LOS (p<0.10)