Resource Utilization in Patients with Migraine Headache with and without Concomitant Depression & Anxiety

Weldon Miller, University of Pittsburgh School of Medicine
Robert Kaniecki, MD, Department of Neurology, University of Pittsburgh

Background

Headache illnesses are a burdensome problem for those afflicted.

- 13% of patients have trouble finding or keeping work
- 50% of migraine sufferers get 5+ attacks per month
- >50% have severe impairment or need bed rest during an attack
- Depression and anxiety are both associated with migraine

There is some research on resource utilization among migraine sufferers, but no research on resource utilization with regards to contact with health care providers.

Methods

A retrospective cohort study
- Patients visited the UPMC Headache Center from April 1, 2010 to August 31, 2010
- Diagnosed with migraine headaches
- 627 patient visits
- Patients were categorized into four groups:
  1. Episodic migraine and no diagnosis of anxiety or depression – 40.1%
  2. Episodic migraine and a diagnosis of anxiety or depression – 6.7%
  3. Chronic migraine and no diagnosis of anxiety or depression – 12.4%
  4. Chronic migraine and a diagnosis of anxiety and/or depression – 20.8%

Hypothesis

There is no association between depression and/or anxiety in migraine patients and their resource usage as measured by emergency department visits and contacts with the Headache Center.

Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Ep. Mig., No Anx. or Dep.</th>
<th>Ep. Mig., Anx. and/or Dep.</th>
<th>Chr. Mig., No Anx. or Dep.</th>
<th>Chr. Mig., Anx. and/or Dep.</th>
<th>P-value for group diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days exercising per week</td>
<td>3.25</td>
<td>2.81</td>
<td>2.28</td>
<td>2.21</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>HIT-6 score</td>
<td>59.5</td>
<td>62.2</td>
<td>64.2</td>
<td>67.0</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Insomnia</td>
<td>27.5%</td>
<td>54.8%</td>
<td>44.8%</td>
<td>69.0%</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Medication days</td>
<td>4.9</td>
<td>5.3</td>
<td>14.4</td>
<td>17.9</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>New patient status</td>
<td>56.6%</td>
<td>57.1%</td>
<td>75.4%</td>
<td>73.9%</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Any tobacco usage</td>
<td>7.3%</td>
<td>23.8%</td>
<td>18.9%</td>
<td>38.0%</td>
<td>&lt; 0.01</td>
</tr>
</tbody>
</table>

No statistically significant differences were found for age, alcohol consumption, caffeine intake, gender, height, meals eaten/day, water intake/day, weight, or unscheduled visits to the Headache Center.

No statistically significant differences were found in the utilization of medications among the four groups.

Conclusions

Patients with episodic migraines and a clinical diagnosis of anxiety and/or depression were the most likely to call the Headache Center 2 or more times in the 6 months following their appointment.

Patients with episodic migraine and no diagnosis of anxiety or depression were least likely to call 2 or more times.

Ancillary variables point to significant lifestyle differences between groups. Patients with chronic migraine or a diagnosis of anxiety and/or depression showed increased rates of insomnia and tobacco usage. Chronic migraineurs also showed significant more medication usage than those with episodic migraine.

Headache providers may want to spend additional time with patients with chronic migraine in order to review treatment algorithms and help reduce office overhead.

References