BACKGROUND

• Medications used for substance use disorder can complicate how well a patient’s acute pain is controlled. Buprenorphine is a partial agonist that can inhibit the effects of other opioids used for pain control. Methadone is a full agonist that can be used for opioid use disorder or pain control at different dosages.

OBJECTIVE

• This study will evaluate pain control in patients being treated for substance use disorder and compare that to pain management after orthopedic surgery in patients without substance use disorder.

METHODS

Study Design
• Single center retrospective chart review of 60 patients

Inclusion Criteria
• Adults age from 18 to 89 years old
• Not on hospice
• Admitted for at least 48 hours
• Received one dose opioids for pain control
• Admitted to Memorial Medical Center between March 31, 2015 and March 31, 2018

Study Measures
Primary Endpoints
• Average total morphine milligram equivalents
• Average pain score

Secondary Endpoints
• Names of which pain medications were used
• Frequency of intravenous opioids

Data Analysis
• Normally distributed data was assessed using a student’s t-test.
• Data that is not normally distributed was assessed using a Wilcoxon-Mann-Whitney test.
• Confidence interval was set to 95%.

RESULTS

Table 2: Average Total MME over 48 Hours

<table>
<thead>
<tr>
<th></th>
<th>Experimental</th>
<th>Control</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>MME</td>
<td>139.9 mg</td>
<td>96.6 mg</td>
<td>0.889</td>
</tr>
</tbody>
</table>

Table 3: Average Pain Score over 48 hours

<table>
<thead>
<tr>
<th></th>
<th>Experimental</th>
<th>Control</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>7.46</td>
<td>5.94</td>
<td>0.002</td>
</tr>
</tbody>
</table>

DISCUSSION

This study suggests the amount of opioids used in patients with a substance use disorder is not statistically different than the amount that would be used in patients without substance use disorder. Patients being treated for substance use disorder had statistically significant higher pain scores than patients without substance use disorder. Further studies comparing patients with substance use disorder to other groups are needed to confirm this result.

RESOURCES