Antipsychotic use for agitation after traumatic brain injury

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Introduction

• 50% of patients become agitated during their early recovery after TBI
• Agitation includes restlessness, mood lability, and aggression and is most common when patients are in a confused state called post traumatic amnesia (PTA)
• Antipsychotics are commonly used to manage agitation during PTA although the rates, types, and impacts are not known

Aims

• Determine the frequency and type of antipsychotics used for agitation during PTA
• To examine the relationship between antipsychotic use and agitation levels
• To provide observational data on the efficacy of antipsychotic use in reducing agitation in PTA

Methodology

• Participants were 125 patients in PTA undergoing inpatient rehabilitation following severe TBI (Mean PTA duration = 48 days)
• Antipsychotic use was retrieved from medical records; agitation was measured daily during PTA using the Agitated Behavior Scale (ABS) with scores >21 indicating clinically significant agitation

Results

Antipsychotic use – frequency and type

• 33.6% of patients were prescribed an antipsychotic to manage agitation during PTA
  • 15.2% commenced in acute care
  • 18.4% commenced in rehabilitation
• Only atypical antipsychotics prescribed
  • Quetiapine most common in acute care
  • Olanzapine most common in rehabilitation

Antipsychotic use – Relationship to agitation levels

- Regression analyses showed that antipsychotic use was associated with higher levels of agitation.
- Antipsychotics still used with ~30% of cases with mild agitation and ~10% with subclinical agitation.

Antipsychotic use – Observational data on efficacy

<table>
<thead>
<tr>
<th>Agitation severity (ABS scores)</th>
<th>Agitation scores in 3 days before change Mean (SD)</th>
<th>Agitation scores in 3 days after change Mean (SD)</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No agitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>22.5 (5.4)</td>
<td>23.3 (6.3)</td>
<td>p = .296</td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
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<tr>
<td>Severe</td>
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</table>

• Agitation scores did not reduce in three days after commencing/increasing antipsychotics (on Average)

Conclusions

• Atypical antipsychotics were frequently used to treat agitation during PTA even in cases with mild or subclinical agitation
• Uncontrolled observational data found no evidence that agitation scores reduced after starting or increasing antipsychotics
• Strong need for controlled studies to examine efficacy of antipsychotics for agitation during PTA
• Recommend using agitation measure such as ABS to monitor effectiveness of medication interventions