A Success Story! Management Of Severe Emergence Agitation With Dexmedetomidine At A Nora Site.

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A Success Story! Management of Severe Emergence Agitation with Dexmedetomidine at a NORA Site
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Introduction
Identifying the possible etiology of emergence agitation is paramount for successful management of a chronic alcoholic patient.

Case Description
A 67-year-old chronic alcoholic male with pneumonia presented for bronchoscopy at NORA site to identify pathogenic bacteria resistant to empiric antibiotics. Patient had a liver transplant 12 years ago for hepatocellular carcinoma and had hepatitis B and C infection. He was also recently diagnosed with moderate aortic stenosis. General anesthesia (GA) was maintained with laryngeal mask airway and a combination of sevoflurane and propofol. Following uneventful GA, patient developed severe emergence agitation which did not respond to haloperidol and lorazepam but which a bolus dose of dexmedetomidine resolved successfully.

Risk factors for emergence agitation in adults

<table>
<thead>
<tr>
<th>Younger patients</th>
<th>Alcohol withdrawal delirium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sevoflurane or desflurane anesthesia compared to TIVA</td>
<td>Psychotomimetic effects of ketamine</td>
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<tr>
<td>Recent smoking</td>
<td>Hypoxia</td>
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<tr>
<td>Post-operative pain</td>
<td>Hypercarbia</td>
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<tr>
<td>Endotracheal tube anesthesia compared to monitored anesthesia care and Laryngeal mask anesthesia</td>
<td>Hypotension</td>
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<td>Presence of urinary catheter</td>
<td>Hypoglycemia</td>
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<tr>
<td>Longer duration of surgery</td>
<td>Dehydration</td>
</tr>
</tbody>
</table>

Management of emergence agitation

1. Management of hypoxia, hypercarbia and hypotension
2. Avoidance of bladder distention
3. Adequate management of postoperative pain
4. Dexmedetomidine is a first line pharmacological agent
5. Haloperidol is an alternative agent

Preventive strategies

1. Adequate pain management with multimodal analgesia
2. Intraoperative total intravenous anesthesia (TIVA)
3. Benzodiazepines
4. Fentanyl
5. Propofol administration during emergence

CONCLUSION
Emergence agitation in this patient was likely precipitated by alcohol withdrawal. Intraoperative sevoflurane may have been a contributory factor. The ideal combination of lorazepam, haloperidol and novel pharmacotherapy with dexmedetomidine was used to manage emergence agitation, which was quickly resolved with administration of dexmedetomidine.

Signs and symptoms of alcohol withdrawal

1. Anxiety
2. Headache
3. Hallucinations (visual, auditory, tactile)
4. Tremor
5. Sweating
6. Disorientation
7. Agitation
8. Tachycardia
9. Seizures

Pharmacological management of alcohol withdrawal

1. Lorazepam is the first line of treatment
2. Thiamine to manage Korsakoff Psychosis
3. Dexmedetomidine