Adverse Events After Ketamine Exposure in Patients with Pediatric Acute-onset Neuropsychiatric Syndrome

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1. To describe four instances of adverse events with ketamine.
2. To inform the practices of future anesthesiologists, intensivists, and other sedation providers.

**Conclusions**
- Patients enrolled in PANS trial (149)
- Patient with 'Ketamine' mentioned in chart (22)
- Ketamine after PANS diagnosis (12)
- Uncomplicated sedation events with ketamine (8)
- Adverse events after ketamine exposure (4)

**Background**

Pediatric Acute-onset Neuropsychiatric Syndrome is a growing diagnosis in pediatrics

**PANS Criteria:**
- Abrupt onset obsessive-compulsive disorder (OCD) and/or eating restriction with at least two equally severe and abrupt symptoms:
  - Anxiety
  - Mood dysregulation
  - Irritability/aggression/oppositionality
  - Behavioral regression
  - Cognitive deterioration
  - Sensory or motor abnormalities
  - Somatic symptoms

Patients with PANS frequently require sedation for diagnostic testing (i.e. MRI, LP) and for treatment (i.e. IVIG, rituximab).

**Objective**

1. To describe four instances of adverse events with ketamine.
2. To inform the practices of future anesthesiologists, intensivists, and other sedation providers.

**Limitations**
- Single institution study
- Limited number of patients with PANS diagnosis

**Conclusions**

Our population experienced a significant risk of adverse side effects after exposure to ketamine. Care should be taken when selecting sedatives for PANS patients given this pattern.

**Future Directions**

Further research is required to:
- Determine correlative versus causative nature between adverse events and ketamine in PANS patients
- To determine which sedative agents are best tolerated in PANS patients
- To develop evidence-based sedation guidelines for providers caring for this unique patient population

**Contact Information**

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**References**

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