Sedation complications

The risk for complications while providing moderate and deep sedation is greatest when caring for patients already medically compromised. It is reassuring that significant untoward events can generally be prevented by careful preoperative assessment, along with attentive intraoperative monitoring and support. Nevertheless, we must be prepared to manage untoward events should they arise.

Changes in heart rate and blood pressure (rare)

Decreased rate of breathing.

Headache.

Inhalation of stomach contents into your lungs (rare)

Nausea and vomiting.

Unpleasant memory of the experience.

Although Brain stem auditory evoked responses in children is a painless procedure, sedation can be needed.

A study aimed to evaluate the safety and sedation complications applied in pediatric patients during ABR testing.

Medical records of 75 children who underwent ABR testing between 2018 and 2020 were evaluated retrospectively in terms of applicability, safety, and complications of sedation anesthesia.

The ages ranged from 3 to 9 (mean 6.2) years. Comorbidity was detected in 20% (n = 15); 3 had multiple comorbidities, and the most common comorbidity was Down syndrome (4%). The drugs used in sedation anesthesia were midazolam in 81.3% (n = 61), a combination of propofol and ketamine in 14.7% (n = 11), and only propofol in 4% (n = 3) of the patients. Additional drug use was needed in 44% (n = 33). The mean procedure time was 40 (range 30-55) min. The mean anesthesia duration was 45 (range 35-60) min. The mean recovery time was 10 (range 5-15) min. Complications related to anesthesia developed in 4 (5.33%) of the patients; respiratory distress, agitation, cough, and nausea-vomiting were seen in one of the patients, respectively. Complications like bradycardia and respiratory or cardiac arrest were not seen at all.

The rate of sedation complications performed during ABR testing of pediatric patients is quite low. It may be more beneficial to use combinations of sedation drugs instead of using a single sedation drug.

Although sedation anesthesia appears to be safe in general, the potentially life-threatening complications of sedative agents should be remembered, especially in children who have comorbidities.

1) Becker DE, Haas DA. Management of complications during moderate and deep sedation: respiratory and cardiovascular considerations. Anesth Prog. 2007 Summer;54(2):59-68; quiz 69. doi: