Anesthesia management in a violent and uncooperative Autistic Patient

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Introduction:

Autistic children are difficult to manage in the hospital setting as they react badly to any change in their daily routine activities. They frequently refuse to cooperate and may even be self-destructive. Appropriate premedication is essential to ensure smooth and pleasant induction (1). Benzodiazepines and ketamine are commonly used for this purpose. However, there can be instances where these drugs cannot be used and anesthesiologists are faced with a challenging task to come up with other alternatives. Clonidine has been used in the treatment of hyperactive and impulsive children with autistic disorder successfully. We took advantage of clonidine’s sedative as well as its favorable behavioral effects in autistic patients (2, 5). We present a case report of a violent autistic patient in whom a unique combination of clonidine and midazolam worked as an excellent premedication.

Case Report:

A 22-yr-old, 120-kg patient with a history of severe autism was scheduled for dental rehabilitation under general anesthesia. Past medical history was significant for a seizure disorder (controlled on medication) and aggressive behavior towards strangers. Premedication with midazolam for a similar procedure 4 years ago was unsatisfactory requiring restraint and intramuscular ketamine. Patient subsequently had an episode of seizure in the immediate postoperative period which was attributed to ketamine. The parents were unhappy with the anesthetic management and preferred to avoid ketamine. On examination the patient was non-verbal and uncooperative. A mixture of clonidine 0.3 mg and midazolam 15 mg in flavored syrup was given as premedication. Thirty minutes later, the patient was calm, detached and moderately sedated. He was easily separated from his parents. Smooth mask induction was achieved with nitrous oxide and sevoflurane. Intravenous access was easily obtained. The rest of anesthetic course was uneventful.

Discussion:

Midazolam is an effective premedication for milder cases of autism and ketamine is the choice for moderate and severe cases (7). However as evident from the patient’s past history, midazolam alone in clinically safe doses was not effective. In spite of ketamine being an alternative premedication, we could not use it as parents did not want it to be administered this time. Literature regarding use of ketamine in patients with epilepsy is contradictory (3, 4). For these two reasons, we chose not to use ketamine. In this unique and difficult situation, another sedative drug with appropriate pharmacodynamic effects was required.

Clonidine has been used in pediatric patients for providing preoperative sedation, anxiolysis and facilitating separation from parents (6). It has also been used in autistic patients and in patient’s with Tourette's disorder to decrease symptoms of hyperactivity, impulsivity, and inattention (8).
Combination of clonidine and midazolam as a premedication has not been reported in the literature. We took advantage of clonidine’s sedative as well as its favorable behavioral effect in autistic patients. We added midazolam to potentiate clonidine’s sedative properties. As illustrated in our case report, clonidine mixed with midazolam may be excellent premedication providing optimal preoperative conditions in a select group of violent and uncooperative patients especially when ketamine cannot be used.

References: