Dexamethasone Effect on Post-Tonsillectomy Recovery Period

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ABSTRACT

To assess the effectiveness of dexamethasone in reducing pain in postoperative tonsillectomy cases.

OBJECTIVES: To assess the effectiveness of dexamethasone in reducing pain in postoperative tonsillectomy cases. Dexamethasone was compared to the control group which received saline solution. The study was performed in the Department of Anesthesiology and Intensive Care, Mansoura University Hospital.

METHODS: The study involved 379 adult and children tonsillectomy cases. Cases were randomized into two groups. First group received an intravenous single dose of dexamethasone at induction of anesthesia while the second group received saline solution. Pain control medications dose and type were modified according to individual needs. A single FACES scale was used in the study. The scale consists of six FACES that are assigned numeric values where zero denotes no pain (a smiling FACE), and ten denotes the worst pain imaginable (a crying FACE). Both the parents and child were asked to individually rate. In addition, patients were asked to record on a daily basis: 1) the number of nighttime awakenings, 2) the number and time of doses of analgesic required to control pain, 3) whether the patient had nausea or not.

RESULTS:

The study found that the use of a single dose of dexamethasone on the lowest possible dose intravenously at the time of induction of anesthesia for adenotonsillectomy cases whatever the patient's age results in a statistically significant difference in the reduction of postoperative pain. In addition, the incidence of postoperative nausea and vomiting was significantly lower in the dexamethasone group. The incidence of postoperative bleeding was also significantly lower in the dexamethasone group. However, pain is not the only expected significant morbid symptom postoperatively. The procedure is associated with a frequent incidence of postoperative nausea and vomiting (PONV) ranging in all age categories.

CONCLUSIONS:

Dexamethasone significantly reduces postoperative pain and reduces the incidence of vomiting and nausea. It is recommended to use a single dose of dexamethasone at induction of anesthesia for adenotonsillectomy cases. Further studies are needed to evaluate the optimal dose and timing of dexamethasone administration.