

A Comparative Study between the Efficacy of Fentanyl, Antihistamines, and Dexmedetomidine in Suppressing Photic Sneeze Reflex during Peribulbar Block

ملخص البحث باللغة الانجليزية:

Background

The photic sneeze reflex (autosomal dominant) is a condition that causes sneezing in response to numerous stimuli, such as looking at bright lights or periocular (surrounding the eyeball) injection. Unexpected or sudden sneezing during injection can be a dangerous side effect in periocular injection, in which abrupt head movement may cause globe injury. **Aims:** We intended to evaluate the efficacy of adding fentanyl, dexmedetomidine, and antihistamines on the incidence of the sneeze reflex associated with propofol sedation during periocular local anesthesia injections. **Settings and Design:** Our study was a randomized, prospective, double-blinded and controlled clinical study

Methods

90 patients were included in this study. Patients were scheduled for cataract extraction surgeries and received peribulbar block. Then patients were randomly divided into three groups (30 patients each). All 90 patients received intravenous propofol 1mg.kg-1 bolus for sedation and were randomized to receive adjunctive drug 2 to 4 minutes prior to propofol injection: 30 patients received intravenous fentanyl 1 ug.kg-1 (Group F), 30 patients received dexmedetomidine 1mg.kg-1 (Group D), and 30 patients received antihistamine (pheniramine 22.75 mg) (Group H). The same local anesthetic admixture, consisting of 5 mL 2% lidocaine with 90 IU hyaluronidase, combined with 5 mL 0.5% plain bupivacaine in a 10-mL syringe was administered to all patients using peribulbar block technique. A masked observer (surgeon or anesthesia assistant) recorded whether the patient had a sneezing event. Continuous

cardiorespiratory monitoring was performed intraoperatively. Intraoperative and postoperative medication side effects were recorded including bradycardia, hypotension, oxygen desaturation, nausea, vomiting and prolonged sedation using Ramsay Sedation Score (RSS).

Results

Five events of sneezing had occurred in 90 patients, two in (D) group and three in (H) group with no statistically significant difference between the three groups as regard sneezing.

Bradycardia, hypotension and sedation had occurred significantly in group (D) compared to group (F) and group (D). No patient suffered from nausea, vomiting or oxygen desaturation in all studied groups. No statistically significant difference as regards patient satisfaction between the three studied groups.

Conclusion

Fentanyl, dexmedetomidine and antihistamines with propofol sedation suppress photic sneeze reflex during peribulbar block.