

Evaluation of the Effect of Dexmedetomidine on PO Intake Postoperatively in Tonsillectomy Patients



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Introduction

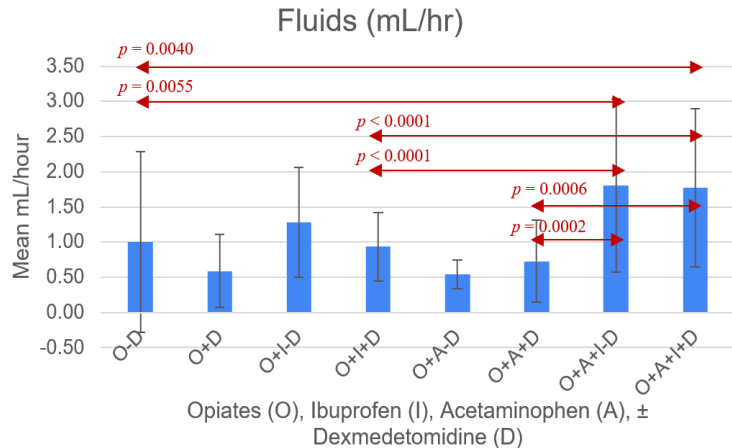
- Dexmedetomidine is an alpha-2 adrenoceptor agonist with sympatholytic, sedative, and anesthetic effects[1]
- It has benefits in post-op tonsillectomy patients such as decreased agitation score, lower postoperative pain scores, and reduced incidence of desaturation
- No study has been performed regarding its effects on PO intake[1]
- This study compared the effect of dexmedetomidine use on patients' PO intake 24 hours after tonsillectomy

Data Collection Methods

- Indications for the surgeries included recurrent tonsillitis, obstructive sleep apnea, and sleep-disordered breathing
- Patients with concurrent peritonsillar abscess drainage, microlaryngoscopy, bronchoscopy, supraglottoplasty, and other procedures that may impact fluid intake were excluded
- 534 patients met the criteria
- The relationship between dexmedetomidine and fluid intake was evaluated using a t-test
- Stratification was done for several concurrent analgesics (opiates, acetaminophen, ibuprofen)
- Multivariate analysis was performed using the Kruskal-Wallis test

Results

- Dexmedetomidine did not significantly impact the amount of fluid intake, fluid intake/kg/hr, or average postoperative pain levels in patients who underwent tonsillectomy or adenotonsillectomy ($p=0.4219, 0.4145, 0.6063$)
- Adding ibuprofen and/or acetaminophen tended to lead to better fluid intake, as shown in Graph 1



	Opiate(s), no dexmedetomidine	Opiate(s) & dexmedetomidine	Opiate(s) & ibuprofen, no dexmedetomidine	Opiate(s), ibuprofen, & dexmedetomidine	Opiate(s) & acetaminophen, no dexmedetomidine	Opiate(s), acetaminophen, & dexmedetomidine	Opiate(s), acetaminophen, & ibuprofen, no dexmedetomidine	Opiate(s), acetaminophen, ibuprofen, & dexmedetomidine
Total Fluid Intake (mL), mean (n, STD)	591 (4, 411)	643 (10, 419)	941 (23, 392)	959 (47, 426)	945 (2, 615)	780 (18, 469)	745 (106, 427)	821 (324, 446)
mL/hour, mean (n, STD)	1.01 (4, 1.28)	0.59 (10, 0.52)	1.28 (23, 0.79)	0.94 (47, 0.49)	0.55 (2, 0.21)	0.73 (18, 0.58)	1.81 (106, 1.23)	1.77 (324, 1.12)
Pain, mean (n, STD)	1.64 (3, 1.03)	3.57 (10, 2.34)	2.41 (22, 2.06)	2.46 (46, 2.28)	2.12 (2, 2.99)	3.13 (18, 2.07)	2.43 (106, 2.26)	2.50 (320, 2.23)

Table 1 : Total fluid intake (mL), hourly fluid intake (mL/hour), and pain means and standard deviation.

Conclusions

- Dexmedetomidine does not negatively influence postoperative fluid intake levels
- Can continue to be utilized in appropriately selected patients experiencing anxiety or agitation prior to surgery

References

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