Background

Obstructive sleep apnea is the most common indication for adenotonsillectomy in paediatrics, making postoperative pain management challenging for the anaesthesiologist. Pain post adenotonsillectomy is usually most severe in the first three days post-op but may persist for up to 10 days. Due to shorter hospital admissions children's pain is often managed at home by parents. At discharge it is unclear whether the post operative instruction is clearly understood and retained by parents. In out patient studies, up to 77% of parents reported that their children experienced moderate to severe levels of pain, yet they administer fewer analgesics than ordered. Other studies have shown an overuse of medications. In an ear nose and throat survey, 8 deaths were due to parents giving extra or increased doses of prescribed post operative narcotics.

Aim

To investigate if the introduction of a standardized video teaching tool would improve parental understanding of pain management post adenotonsillectomy compared to the standard verbal instructions by floor nursing staff.

Methods

Prospective study - parents or caregivers were randomized into three groups: (Diagram 1)

A. Received standard verbal postoperative instructions on pain management from floor nursing staff.
B. Watched the video teaching tool after receiving standard verbal instructions.
C. Watched the video only.

All parents completed pre and post-instruction assessments to ascertain their knowledge of postoperative pain management.

Responses were scored on a 0-8 scale, assigning 1 point to each correct response out of 8 multiple choice questions.

Post-instruction assessments included a subjective rating of the helpfulness of the video teaching tool. Groups B and C rated the video teaching tool on a scale of 1-5, where 5 was “most helpful.”

Continuous data were compared across groups by Kruskal-Wallis tests; and between pre-instruction and post-instruction assessments using Wilcoxon signed-rank tests.

Results

Seventy-six parents enrolled: mean child age 8.4±3.2 years (A: 25, B: 25, C: 26).

Median pre-instruction assessment score was 5 out of 8 points (interquartile range [IQR]: 4, 6).

Baseline scores were normally distributed with a mean of 5.0±1.4, and did not vary across groups (p=0.192).

Median post-instruction assessment score remained at 5 (IQR: 4, 6; p=0.904 of difference from baseline) but variations in score change from baseline across groups were not statistically significant (p=0.064).

The median change in score was lower in group A (-1; IQR: -1, 0) but variations in score change from baseline across groups were not statistically significant (p=0.064).

The median satisfaction rating of the video tool was 4 (IQR: 4, 5).

Discussion

One third of parents improved their scores on an assessment of pain management knowledge after hearing verbal instructions, watching a video, or both.

Persisting deficits in understanding postoperative verbal instructions indicate a need to tailor educational materials further to convey clear and complete information on pain management.

The median post-instruction test scores in groups B and C and high satisfaction scores of the video teaching tool support the use of video instruction as a low-cost, easily accessible resource for improving parental understanding of pain management.

References

1. Cote CJ, et al. Death or neurologic injury after tonsillectomy in children with a focus on obstructive sleep apnea: Houston, we have a problem! Anesth Analg 2013;116:1276-8

Diagram 1

GROUP A = 25
Verbal only

GROUP B = 25
Verbal & Video

GROUP C = 26
Video only