



Quality of life after adenotonsillectomy for children with sleep-disordered breathing: a linear mixed model analysis.

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Abstract

OBJECTIVE: To study changes in quality of life (QoL) after adenotonsillectomy (T&A) in children with sleep-disordered breathing (SDB), and to elucidate discrepancies in QoL improvements after T&A in children of different gender, age, adiposity status, and disease severity.

MATERIALS AND METHODS: Children aged 2-18 years were recruited. All children had SDB-related symptoms and underwent preoperative full-night polysomnography (PSG). Caregivers completed the first obstructive sleep apnea 18-items questionnaire (OSA-18) prior to T&A and the second OSA-18 survey within 3 months after surgery. Disease severity was defined as primary snoring (apnea/hypopnea index, AHI < 1), mild obstructive sleep apnea (OSA) (5 > AHI ≥ 1), and moderate-to-severe OSA (AHI ≥ 5). Discrepancies in OSA-18 score changes after T&A for different groups were assessed using the linear mixed model.

RESULTS: In total, 144 children were enrolled (mean age, 7.0 ± 3.6 years; 76% boy). The OSA-18 total score changes after surgery were not significantly different by gender (boys vs. girls), age group (≥ 6 years vs. < 6 years), or adiposity (obese vs. non-obese). The OSA-18 total score changes after surgery differed by disease severity (primary snoring vs. moderate-to-severe OSA, P = 0.004; mild OSA vs. moderate-to-severe OSA, P = 0.003). Children with moderate-to-severe OSA had greater improvement in OSA-18 total score after surgery than those with mild OSA or primary snoring.

CONCLUSIONS: Children with SDB had QoL improvement after T&A, as documented by OSA-18 score changes. The QoL improvement after T&A for SDB children increased as disease severity increased, and the improvement was not affected by gender, age, or adiposity.

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KEYWORDS: Adenoidectomy; Child; Polysomnography; Quality of life; Sleep apnea syndromes; Tonsillectomy

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