

Adenotonsillectomy versus watchful waiting in pediatric obstructive sleep apnea: A 3-year RCTIsabella Sjölander¹, Johan Fehrm², Anna Borgström², Pia Nerfeldt², Danielle Friberg¹¹ Uppsala Universitet, ² Karolinska Institutet**Background**

Adenotonsillectomy (ATE) is one of the most common surgical procedures to treat children with obstructive sleep apnea (OSA), but to our knowledge there are no or a few randomized clinical trials confirming the benefit of surgery compared with watchful waiting in children between 2 and 4 years of age at a long-time follow-up. The aim of this study was to determine whether ATE is more effective than watchful waiting for treating otherwise healthy children with mild to moderate OSA, three years after randomization.

M&M

Children 2 to five years of age, with an obstructive apnea–hypopnea index (OAHI) score of 2 - 10 were eligible for the study. All children were randomized to ATE (n = 29) or watchful waiting (n = 31). Polysomnography (PSG) and OSA-18 questionnaire were compared between the RCT groups.

Results

A total of 48 participants (80%; ATE, n = 23; watchful waiting, n = 16; crossovers = 9) completed the three year follow-up. Thirty-nine children of 60 (65%) were analyzed per protocol, 23 from the ATE group, 16 from the WW group. Both ATE and WW groups had a mean OAHI of 1.1, and OSA-18 mean total symptom score below 50, no group differences. Ten children in the WW-group underwent surgery (crossovers), they also showed significantly larger tonsils compared to surgery-naïve.

Conclusion

This small long-term study suggest that adenotonsillectomy is effective for young children with mild to moderate OSA. Children with smaller tonsils and mild OSA could be recommended watchful waiting with follow-ups.