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## Review Article

### Adenotonsillectomy Complications: A Meta-analysis

Graziela De Luca Canto, DDS, MsC, PhD<sup>a,b</sup>, Camila Pachêco-Pereira, DDS<sup>b</sup>, Secil Aydinöz, MD<sup>c</sup>, Rakesh Bhattacharjee, MD<sup>d</sup>, Hui-Leng Tan, MBBS<sup>e</sup>, Leila Kheirandish-Gozal, MD, MSc<sup>d</sup>, Carlos Flores-Mir, DDSC, MSc, DSc, RCD(C)<sup>b</sup>, and David Gozal, MD, MBA, FAAP<sup>d</sup>

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#### ABSTRACT

**BACKGROUND AND OBJECTIVE:** Complications after adenotonsillectomy (AT) in children have been extensively studied, but differences between children with and without obstructive sleep apnea (OSA) have not been systematically reported. Our objective was to identify the most frequent complications after AT, and evaluate if differences between children with and without OSA exist.

**METHODS:** Several electronic databases were searched. A partial gray literature search was undertaken by using Google Scholar. Experts were consulted to identify any missing publications. Studies assessing complications after AT in otherwise healthy children were included. One author collected the required information from the selected articles. A second author crosschecked the collected information and confirmed its accuracy. Most of the selected studies collected information from medical charts.

**RESULTS:** A total of 1254 studies were initially identified. Only 23 articles remained after a 2-step selection process. The most frequent complication was respiratory compromise (9.4%), followed by secondary hemorrhage (2.6%). Four studies compared postoperative complications in children with and without OSA, and revealed that children with OSA have nearly 5 times more respiratory complications after AT than children without OSA (odds ratio = 4.90; 95% confidence interval: 2.38-10.10). In contrast, children with OSA are less likely to have postoperative bleeding when compared with children without OSA (odds ratio = 0.41; 95% confidence interval: 0.23-0.74).

**CONCLUSIONS:** The most frequent early complications after AT are respiratory compromise and secondary hemorrhage. Based on the current limited evidence, children with OSA appear to have more respiratory complications. Conversely, hemorrhage appears to be more frequent in children without OSA.

Accepted July 7, 2015.

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Published online September 21, 2015  
PEDIATRICS Vol. 136 No. 4 October 1, 2015  
pp. 702–718  
(doi: 10.1542/peds.2015-1283)

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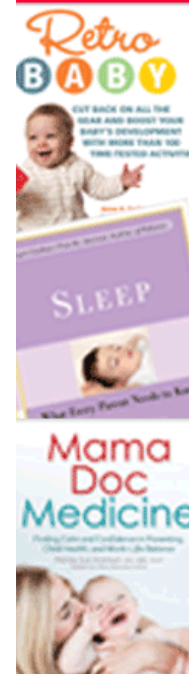
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