

Session/Poster#

Presenter

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Outcomes of In-office versus operating room insertion of tympanostomy tubes in children

Introduction: Tympanostomy tube insertion in children is commonly performed under general anesthesia but concerns over the potential harmful effects of anesthesia have sparked interest in office-based alternatives. Although initial research comparing in-office versus operating room (OR) insertion of tubes looks promising, there are scant data available on long-term outcomes. The objective of this study is to compare long-term outcomes of tympanostomy tubes placed in-office versus the OR, with emphasis on the time to tube occlusion (occ) or extrusion (ext).

Methods: We reviewed electronic medical records in an academic pediatric otolaryngology practice of children under age 13 years who had tubes placed in-office or the OR. Differences in time to unilateral and bilateral tube occ/ext were compared by Kaplan-Meier (K-M) survival analysis with log rank comparison.

Results: 817 children were included (473 office tubes, 344 OR tubes). Tube placement was equally successful for both groups: 98.3% for office and 98.9% for OR. Comparison of K-M plots for time to occ/ext by location showed no meaningful difference ($P=.84$ for unilateral and $P=.71$ for bilateral). Regression analysis indicated a strong interaction of location with operator status. Median time to unilateral occ/ext and bilateral occ/ext was shorter for OR residents compared to OR attendings (457 vs 593 days, $P=.002$, and 672 vs 974 days, $P=.03$, respectively). There was no difference in the time to unilateral or bilateral tube occ/ext between office attendings and OR attendings. There was no significant difference between groups in the need for tube removal, repeat tubes, tube medialization, or post-extrusion tympanic membrane perforation.

Conclusion: The comparable long-term outcomes found for tubes inserted in-office versus the OR, including time to occ/ext, suggest that both settings are acceptable for the procedure, with choice based primarily on parental preference and clinician experience.