INNOVATIVE TECHNOLOGIES AND TRANSLATIONAL THERAPIES FOR DEAFNESS

Effectiveness of Surgical Approach of Insertion Ventilation Tubes (Tympanostomy) and Adenoidectomy in Comparison with Non-Surgical Approach (Watchful Waiting Approach) in Children at the Age between 1 and 6 and Who Suffer from Otitis Media with Effusion (OME) in 12-Month Period of Observation—The Retrospective Analysis



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## **Abstract**

Otitis media with effusion (OME) is one of the most common diseases in childhood. The condition refers to an accumulation of fluid in the cavity of the middle ear behind an intact membrane and without any symptoms of acute infection such as fever, ear pain, headache, irritability, or pulling on the ears. The Eustachian tube may also be more or less blocked. Some 70% of children have had OME at least once by 2 years old and 80% by age 4. A clinically effective treatment for OME is a "watchful waiting" strategy over the initial 3 months, allowing the condition to spontaneously resolve. Only in cases where the problem per-sists may surgery be required.

**Table 1**. The number of incidents of acute otitis media in the medical history of children in the surgical and non-surgical groups.

	No	Yes	Total
Surgical group	367 (87.0)	55 (13.0)	422 (100.0)
Non-surgical group	16 (32.0)	34 (68.0)	50 (100.0)

<sup>&</sup>quot;Yes" indicates confirmation of AOM in medical history; "No" indicates no confirmation of AOM in the medical history of the patient. Percentage is given in parentheses.

## Résultats

For the entire surgical group, the number of healthy days ranged from 20 to 365, with a mean of 328.0 days (SD = 91.4). In the non-surgical group, the number of healthy days ranged from 13 to 365, with a mean of 169.2 days (SD = 127.3). The difference in the number of healthy days was statistically significant (p < 0.001). The certainty of treatment in the first group was higher than in the second group, and the number of days without recurrence was significantly higher than in the second group. In the first group, there were 71 recurrences from 422 children (16.8%), and, in the second subgroup, there were 40 recurrences of acute otitis media (AOM) from 50 children (80%). The RR was 0.2.

**Table 2**. The distribution of the number of AOM cases in 12-month follow-up period in the surgical and non-surgical groups.

	Number of ENT Consultations	Number of Patients	Percentage	Descriptive Statistics
	0	312	73.9	
Surgical group	1	63	14.9	Min = 0; $Max = 3$ ; $M = 0.22$ ;
	2	29	6.9	SD = 0.55
	3	8	1.9	
	0	5	1.2	
Non-surgical	1	2	0.5	Min = 0; $Max = 3$ ; $M = 1.16$ ;
group	2	1	0.2	SD = 0.91
	3	1	0.2	

**Objectifs** Conclusion

The objective of this analysis is to clinically assess the effectiveness of the surgical approach (tube insertion with adenoidectomy) in comparison with the non-surgical approach (watchful waiting) during a 12-month observation period.

The surgical approach in children aged 1–6 years who have been diagnosed with otitis media with effusion is reasonable and beneficial for the child.

## **Méthodes et Matériels**

This study was retrospective and obtained approval from the bioethics committee. The criteria of inclusion in the first group (surgical approach) were: (1) a diagnosis of chronic otitis media with effusion in children aged between 1 and 6 years; (2) their medical history showed that they had undergone adenoidectomy and tympanostomy with the insertion of ventilation tubes (VTs). The criteria for inclusion in the second group (non-surgery) were similar to the first group except that their medical history showed they had not undergone adenoidectomy or tympanostomy with the insertion of VTs. There were 422 children included in the surgical group and 50 children in the non-surgical group, and the period of observation was 12 months.

## Références

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