



PROFILE OF CHILDREN IN RISK OF NEW SURGICAL INTERVENTION DUE TO OTITIS MEDIA WITH EFFUSION

Miguel Sá Breda, Sara Pereira, Ana Menezes, Diana Silva, Joana Guimarães,
Daniela Ribeiro, Luís Dias

* - Otorhinolaryngology and Head and Neck Surgery Department Hospital de Braga



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1. INTRODUCTION

Otitis Media With Effusion (OME)

- ✓ Presence of middle ear effusion without active acute infection, with a non-perforated tympanic membrane
- ✓ Most common cause of hearing loss in children
- ✓ Few symptoms associated



Epidemiology

- Until 10 years old, 90% at least have 1 episode
- The majority is solved within 3 months, but 5 to 10% lasts 1 or more years
- 30 to 40 % of the children have recurrent OME

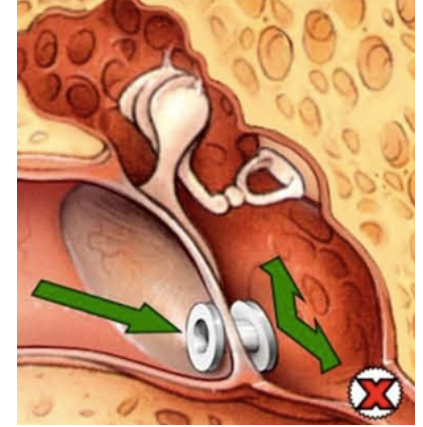


Surgical Treatment

Myringotomy with trans-tympanic ventilation tube (mTVT)

20% may need another mTVT within 2 years

in Boston M et al. (2003)



in Rosenfeld RM (2005)

Main Aim

- To identify the risk factors for children receiving additional myringotomy with TVT after the first one



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2. METHODS

Methods

- ✓ Retrospective analysis of medical records
- ✓ 6 Years - January 2009 to December 2014
- ✓ Young patients (age < 18) who underwent mTVT because of OME – 2 Groups

- ✓ **mTVT indications:**

- Bilateral – OME > 3 months
- Unilateral – OME > 6 months

- ✓ **Studied Variables:**

- age of 1st mTVT
- concomitant adenoidectomy
- estimated indwelling period of TVT
- postoperative otorrhea (1st mTVT)
- perioperative upper airway recurrent infections
- history of allergies
- preoperative eosinophilia
- postoperative complications

Statistical Analysis with SPSS® v.22
P values of <.05 were statistically significant

Study Group (SG)

- ≥ 2 mTVT
- 28 children
55 ears

Control Group (CG)

- 1 mTVT
- 55 children
97 ears

Exclusion Criteria:

- Age > 18y
- Syndromic Children (Down's syndrome ...)
- Craniofacial anomalies
- Cleft Palate
- Perforated Chronic Otitis Media



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3. RESULTS & DISCUSSION

Results

Total Patients: n= 83
Total Ears: n= 152

Results

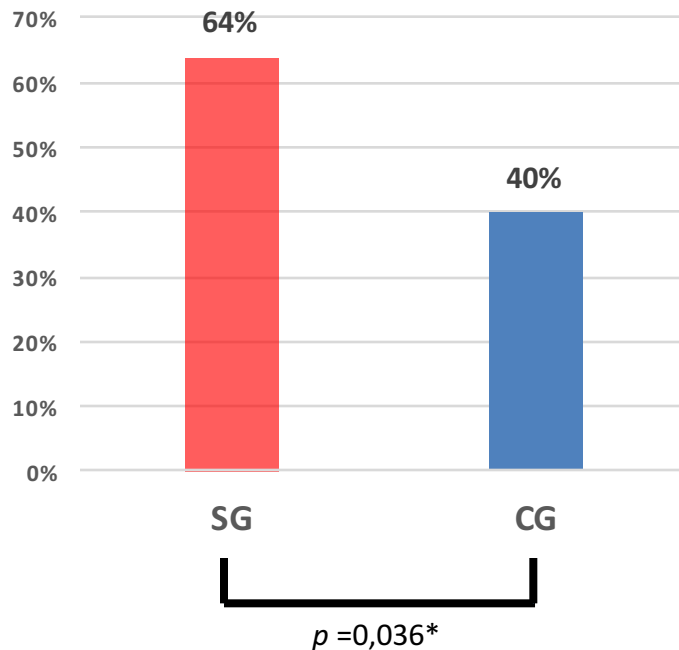
	SG	CG	<i>p value</i>
Patients (n)	28	55	
male - % (n)	60,7% (17)	52,7% (29)	NS*
female - % (n)	39,3% (11)	47,3% (26)	
Concomitant Adenoidectomy at 1st mTVT - % (n)	93% (26)	98,2% (54)	NS*

✓ the mean age of the 1st mTVT and the mean indwelling period of TVT are significantly associated to another mTVT

Ears (n)	SG	CG	
Mean indwelling period of 1 st TVT - months	9,1	12,1	<,001** ✓
No. of mTVT			
2X - % (n)	82% (23)	-	
3X - % (n)	18% (5)	-	

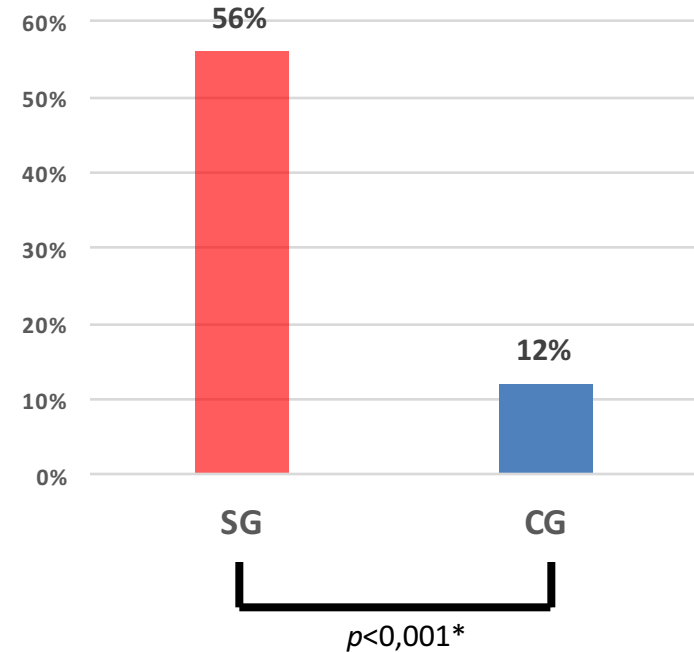
* - χ^2 -test
** - t-test

Perioperative upper airway recurrent infections



* - χ^2 -test

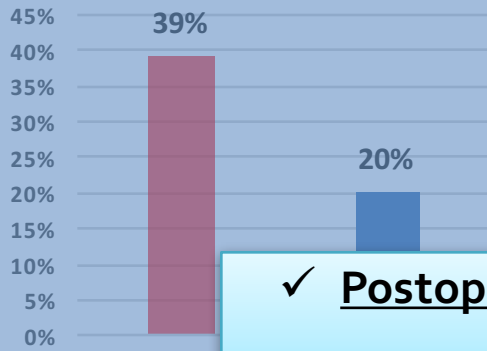
Postoperative otorrhea



✓ the postoperative otorrhea and the perioperative upper airway tract recurrent infections are significantly associated to another mTVT

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History of allergies

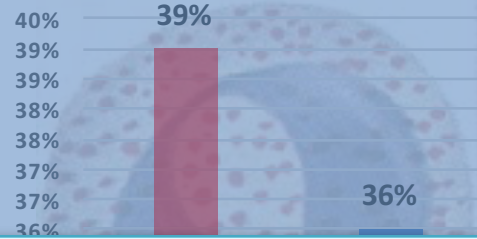


SG

NS*

* - χ^2 -test

Preoperative eosinophilia



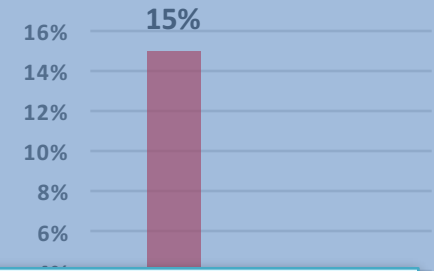
NS*

* - χ^2 -test

Eosinophilia >400 cells/mm³

Ref. in Manual of Pediatric Hematology and Oncology 4th ed. Lanzkowsky (2005)

Postoperative complications



$p < 0,001^{**}$

** - Fisher's exact test

✓ Postoperative complications after the 1st mTVT are significantly associated to children who need another mTVT

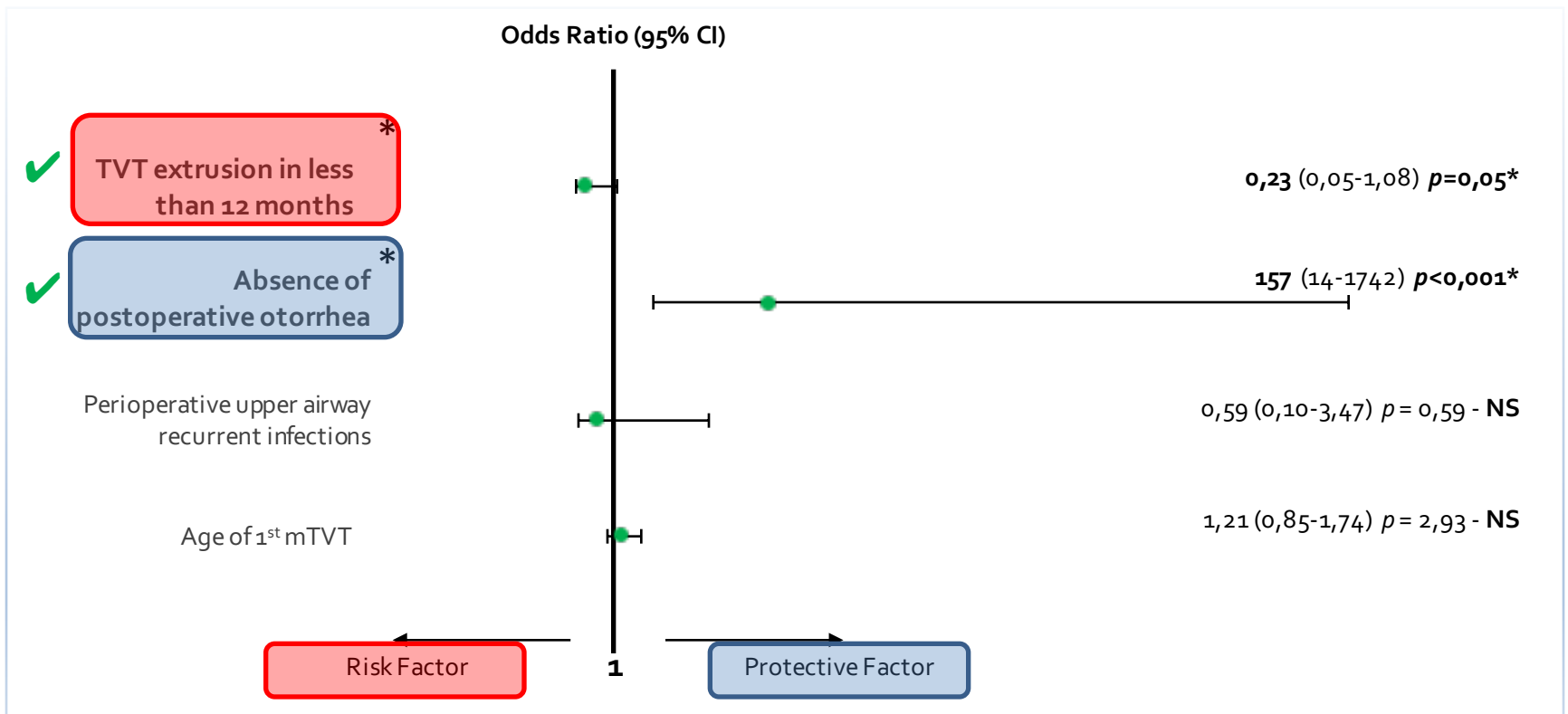
Postoperative complications in SG (n=6)

Tympanic perforation (n)	5
Tympanic granulation (n)	2
Tympanic retraction (n)	1

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Is there any risk factor that can lead to re-intervention?

Binary logistic regression



R² Nagelkerke = 68,5%



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4. CONCLUSION

Conclusion



The profile of children who are at risk of new mTVT due to OME:

- ✓ TVT extrusion in less than 12 months
- ✓ Postoperative otorrhea

➤ Children who need new mTVT are statistically associated to more postoperative complications

THANK YOU
FOR YOUR
ATTENTION



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miguelbreda@gmail.com