

# Prognostic factors of chronic otitis media



Chrobok V. <sup>1,2</sup>, Pellant A. <sup>1,2</sup>, Meloun M. <sup>3</sup>, Pokorný K. <sup>1</sup>, Šimáková E. <sup>4</sup>

e-mail: chrobok@nem.pce.cz, tel.: +420 466015306

<sup>1</sup> Department of Otorhinolaryngology and Head and Neck Surgery, Regional hospital Pardubice, Pardubice, Czech Republic

<sup>2</sup> Institut of Health Studies, University of Pardubice, Pardubice, Czech Republic

<sup>3</sup> Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic

<sup>4</sup> Department of Pathology, University hospital, Hradec Králové, Pardubice, Czech Republic



## Introduction

The goals of successful tympanoplasty are the removal of the underlying pathologic processes and the achievement of a mucosal-lined middle ear cleft with an intact tympanic membrane and sound-conducting mechanism. The prognostic factors can be divided into *intrinsic factors*: eustachian tube function, disease severity and status of residual ossicular chain, and *extrinsic factors*: surgical technique, staging, design and composition of the graft and prosthesis.

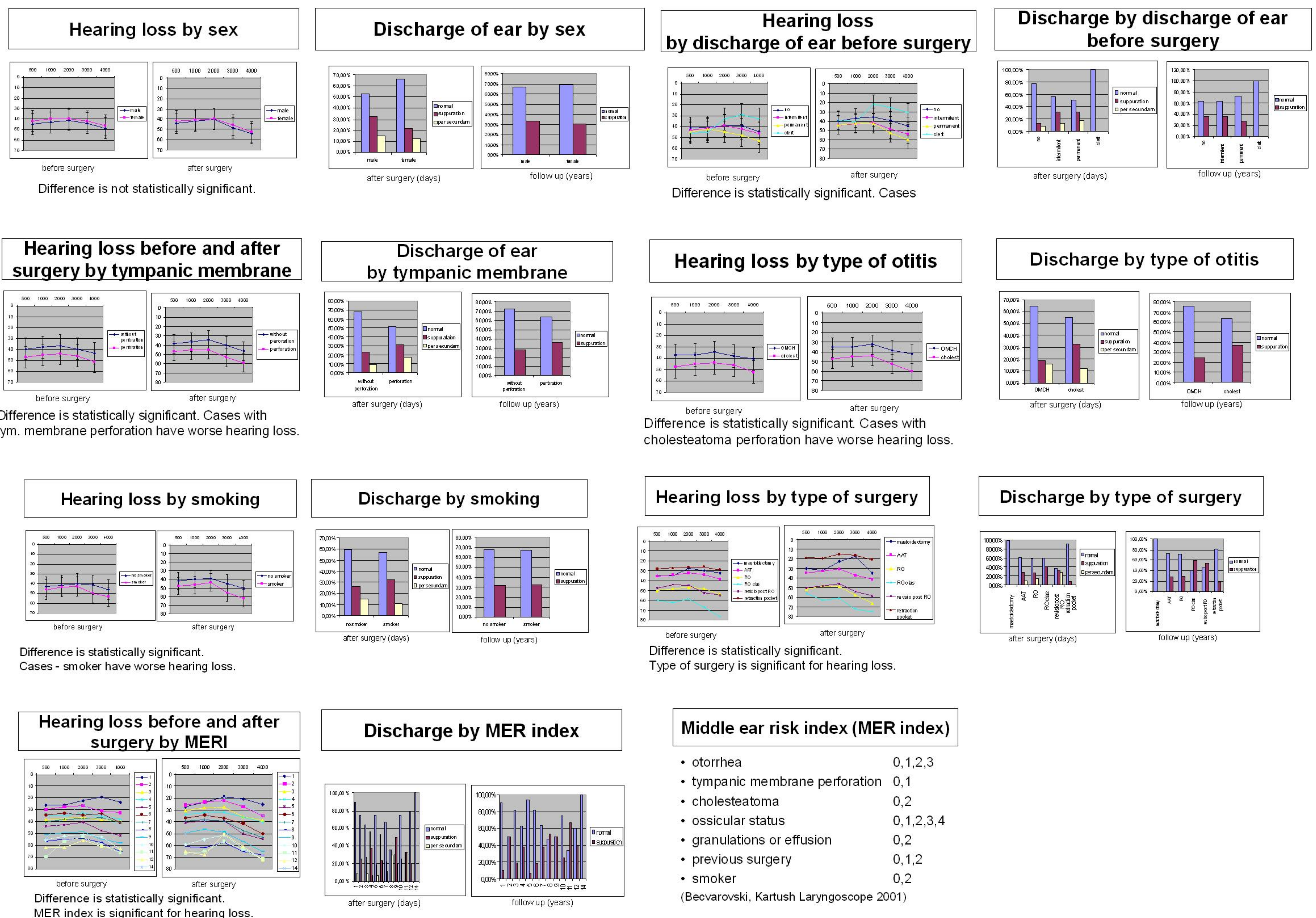
We reviewed the middle ear risk index (MERI) by Becvarovski and type of surgery in our patients. The risk factors of MER index are otorrhea, perforation of tympanic membrane, cholesteatoma, ossicular status, granulation or effusion of middle ear, previous surgery and smoking.

## Material and methods

It is retrospective study of 155 patients (91 male and 66 female) with chronic otitis media with or without cholesteatoma in Department of Otorhinolaryngology and Head and Neck Surgery Pardubice between July 1996 and December 2004. We distinguished six types of surgery: tympanotomy with resection of retraction pocket (11 cases), atticotomy (51 cases), modified radical mastoidectomy (62 cases), radical mastoidectomy (5 cases), revision after mastoidectomy (24 cases) and simple cortical antromastoidectomy (2 cases) The follow-up period ranged from 1 to 9.5 years; mean 3.1 year.

## Results

The risk factors of MER index and risk value were otorrhea: dry ear 22 cases, occasionally wet 83 cases, persistently wet 44 cases; perforation of tympanic membrane: none 69 cases, present 86 cases; cholesteatoma: none 57 cases, present 98 cases; ossicular status: normal 60 cases, defect of incus 41 cases, defect of incus and stapes 21 cases, defect of malleus and incus 13 cases, defect of malleus, incus and stapes 20 cases; middle ear: normal mucosa 77 cases, granulations or effusion 78 cases; previous surgery none 102 cases, staged surgery 16 and revision 37 cases; 118 nonsmokers and 37 smokers. Statistical analysis was performed.



## Conclusion

The MER index was calculated and compared with hearing level before and after surgery. Patients with permanent discharge of ear before surgery, perforation of tympanic membrane, cholesteatoma, smoking and higher MER index had worse preoperative and postoperative hearing loss.

## Acknowledgments

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## References

Becvarovski Z, Kartush JM: Smoking and tympanoplasty: implications for prognosis and the middle ear risk index (MERI). Laryngoscope 111: 1806-1811, 2001