Supplementary Online Content


**eFigure 1A.** Hearing Thresholds of Revision Tympanoplasties

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**eFigure 3C.** Hearing Results, Revisions Following Tympanoplasty in Our Department & No Revision Surgery Following Surgery in Our Department

**eFigure 4.** Statistical Analysis and PTA-ABG of Each Patient Group

This supplementary material has been provided by the authors to give readers additional information about their work.
eFigure 1 A. Hearing thresholds of revision tympanoplasties

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eFigure 1 B. **Hearing thresholds of primary tympanoplasties**

Frequency [kHz]

- **BC preop_prim**
- **BC early-postop_prim**
- **BC late-postop_prim**
- **AC preop_prim**
- **AC early-postopPrim**
- **AC late-postop_prim**

Hearing level [dB]
eFigure 1 A, B, C. AC and BC thresholds of revision (n=33) (eFig 1A) and of primary tympanoplasties (n=9) (eFig 1B). Number of revision tympanoplasties (n=33) and primary tympanoplasties (n=9) related to their pure-tone average air-bone gap (PTA-ABG) preoperatively, three weeks postoperatively (early-postoperative) and 6.8 years postoperatively (late – postoperative) (eFig. 1C).

AC – air conduction; BC- bone conduction; preop – preoperative; postop – postoperative;
rev – revision tympanoplasty; prim – primary tympanoplasty.
eFigure 2 A. **Hearing thresholds of canal wall down procedures**

- **BC preop_CWD**
- **BC early-postop_CWD**
- **BC late-postop_CWD**
- **AC preop_CWD**
- **AC early-postop_CWD**
- **AC late-postop_CWD**

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eFigure 2 B. **Hearing thresholds of intact canal wall tympanoplasties**

![Graph showing hearing thresholds for intact canal wall tympanoplasties](image)

- BC preop_CWU
- BC early-postop_CWU
- BC late-postop_CWU
- AC preop_CWU
- AC early-postop_CWU
- AC late-postop_CWU

eFigure 2 C. **Hearing results, canal wall down & canal wall up procedures**

![Bar chart showing hearing results](image)

- CWD- preoperative
- CWD early-postoperative
- CWD late-postoperative
- CWU- preoperative
- CWU early-postoperative
- CWU late-postoperative

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eFigure 2 A, B, C. AC and BC thresholds of canal wall down (CWD) (n=18) (eFig. 2A) and intact canal wall procedures (CWU) (n=24)(eFig. 2B).

Number of canal wall down procedures (n=18) and tympanoplasties with intact canal wall (n=24) related to their pure-tone average air-bone gap (PTA-ABG) preoperatively, three weeks postoperatively (early-postoperative) and 6.8 years postoperatively (late -postoperative) (eFig. 2C).

AC – air conduction; BC- bone conduction;  preop – preoperative;  postop – postoperative;

CWD – canal wall down; CWU – intact canal wall.
eFigure 3 A. Hearing thresholds of own tympanoplasties needing revision

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<th>frequency [kHz]</th>
<th>hearing level [dB]</th>
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<tr>
<td></td>
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<tr>
<td></td>
<td>BC late-postop_own-rev</td>
</tr>
<tr>
<td>1</td>
<td>AC preop_own-rev</td>
</tr>
<tr>
<td></td>
<td>AC early-postop_own-rev</td>
</tr>
<tr>
<td>2</td>
<td>AC late-postop_own-rev</td>
</tr>
</tbody>
</table>

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Figure 3 B. Hearing thresholds of own tympanoplasties without revision

frequency [kHz]
Hearing results, revisions following tympanoplasty in our department & no revision surgery following tympanoplasty in our department

Number of revision surgery following tympanoplasty in our department (n=11) tympanoplasties with no need for revision surgery (n=31) related to their pure-tone average air-bone gap (PTA-ABG) preoperatively, three weeks postoperatively (early-postoperative) and 6.8 years postoperatively (late –postoperative) (eFig. 3C).

AC – air conduction; BC- bone conduction; preop – preoperative; postop – postoperative; own-rev. – revision surgery after tympanoplasty performed in our department; no-rev. – no revision surgery following tympanoplasty in our department.
eFigure 4. Result of the ANOVAs and PTA-ABG for each subgroup of patients at all three times of investigation. P-values are indicated by asterisks (* = p ≥ 0.05; ** = p ≤ 0.05) with T-values ranging from 0.246 to 1.251.

Preop. – preoperative; early postop. – three weeks after surgery; late postop. – 6.8 years after surgery; revision surg. – previous surgery at other departments prior to surgery in our department; primary surg. – primary surgery performed in our department; CWD – canal wall down procedure; CWU – intact canal wall procedure; own revision surg. – revision surgery after tympanoplasty in our department; no own revision surg. – revision surgery not performed after surgery in our department.

PTA-ABG – pure-tone average air-bone gap.