**Table 1. The potential of magnetic resonance imaging in the cholesteatoma identification**

|  |  |  |  |
| --- | --- | --- | --- |
| **MRI-based suspicion for cholesteatoma** | **Cholesteatoma not confirmed, N (%)** | **Cholesteatoma confirmed, N (%)** | **P value** |
| No | 65 (81.2) | 10 (4.8) | < 0.001 |
| Yes | 15 (18.8) | 199 (95.2) |

MRI, magnetic resonance imaging

**Table 2. The potential of computed tomography in the cholesteatoma identification**

|  |  |  |  |
| --- | --- | --- | --- |
| **CT-based suspicion for cholesteatoma** | **Cholesteatoma not confirmed, N (%)** | **Cholesteatoma confirmed, N (%)** | **P value** |
| No | 21 (44.7) | 61 (39.9) | 0.677 |
| Yes | 26 (55.3) | 92 (60.1) |

CT, computed tomography

**Table 3. Proportion of the patients with confirmed cholesteatomas depending on its location (according to the magnetic resonance imaging results)**

|  |  |  |
| --- | --- | --- |
| **Location** | **Cholesteatoma not confirmed, N (%)** | **Cholesteatoma confirmed, N (%)** |
| Aditus (the antrum entrance) | 1 (25) | 3 (75) |
| Antrum | 6 (5.4) | 106 (95.6) |
| Tympanum | 10 (5.4) | 175 (94.6) |
| Attic | 7 (4.2) | 158 (95.8) |
| Lateral wall | 2 (2) | 96 (98) |
| Medial wall | 4 (3.6) | 108 (96.4) |
| Anterior wall | 4 (3.4) | 112 (96.6) |
| Posterior parts | 2 (2) | 96 (98) |
| Tapetum | 3 (2.9) | 102 (97.1) |
| Mesotympanum | 3 (7.9) | 35 (92.1) |
| Hypotympanum |  | 21 (100) |
| Other |  | 34 (100) |

**Table 4. Values of the magnetic resonance imaging signal in the patients with
and without the history of surgery, mm²/s (Me (LQ; UQ))**

|  |  |  |
| --- | --- | --- |
| **Parameter** | **No past surgery (n = 156)** | **Past surgery (n = 110)** |
| Ch signal | 883 (775; 1001) | 872 (783; 985) |
| SD of the Ch signal | 63 (44; 84) | 64 (47; 83) |
| MB signal | 1029 (954; 1135) | 1020 (906; 1089) |
| SD of the MB signal | 72 (51; 87) | 76 (57; 93) |
| Signal difference (Ch - MB) | -149 (-286; 14) | -128 (-268; 17) |
| SD difference (Ch - MB) | -6 (-28; 14) | -10 (-32; 8) |
| Standardized signal difference | -2.2 (-5.0; 0.3) | -1.5 (-3.6; 0.2) |

Ch, cholesteatoma; MB, midbrain

**Table 5. Analysis of the signals from cholesteatoma and artifacts, mm²/s (Me (LQ; UQ))**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Location** | **P value** | **P value, post-hoc** |
| **Cholesteatoma (1)** | **Brain signal (2)** | **Artifact (3)** |
| Signal | 878.5 (780; 999) | 1020 (932.2; 1113.2) | 1089.5 (718.8; 1405.2) | < 0.001 | 1–2: < 0.0011–3: < 0.0012–3: 0.934 |
| SD | 63 (44; 83) | 71.5 (52; 90) | 63.5 (40; 91.2) | 0.004 | 1–2: 0.0041–3: 0.6232–3: 0.217 |