CHOLESTEATOMA IN PEDIATRIC AGE
PROGNOSTIC FACTORS FOR RECURRENCE - EXPERIENCE OF A PORTUGUESE HOSPITAL
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INTRODUCTION
Cholesteatoma in children is known to be more aggressive than in adults. Surgical approach is controversial. Given that a higher recurrence rate in pediatric patients with cholesteatoma than in adults has been reported, it is important to take into account the factors that can contribute to relapse. In past studies, younger age, ossicular chain interruption and experience of the surgeon have been addressed as risk factors for relapse.

OBJECTIVE
✓ Analyze the pediatric population diagnosed with chronic otitis media (COM) with cholesteatoma who underwent surgery in a tertiary hospital, and evaluating potential factors that can contribute to relapse.

METHODOLOGY AND METHODS
✓ Retrospective review of 22 pediatric patients who underwent surgery for treating COM with cholesteatoma in Hospital de Braga between 2011 and 2016.
✓ Assessed data:
  - Gender, Age and Side
  - Previous adenoidectomy
  - Previous middle ear surgery
  - Location (mesotympanum, epitympanum and mastoid)
  - Type of procedure
  - Mucosal and ossicles state
  - Otorrhea on the day of surgery
  - Hearing thresholds pre and post-operatively (air and bone conduction and air-bone gap)
  - Recurrence
  - Follow-up time

STATISTICAL ANALYSIS
✓ SPSS 23.0 for macOS
✓ P-value was considered statistically significant if p < 0.05
✓ Event free survival was calculated with Kaplan-Meier using log-rank test

RESULTS

<table>
<thead>
<tr>
<th>Age</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>17</td>
<td>12.91±4.093</td>
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</table>

<table>
<thead>
<tr>
<th>Type of Surgery</th>
<th>Atticotomy</th>
<th>Canal up mastoidectomy</th>
<th>Canal down mastoidectomy</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td>7</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Gender</td>
<td>31.8%</td>
<td>18.2%</td>
<td>50.0%</td>
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</table>

<table>
<thead>
<tr>
<th>Months of Follow-up</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>72</td>
<td>38.1±22.13</td>
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<tr>
<th>No</th>
<th>Yes</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>14</td>
<td>8</td>
<td>22</td>
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DISCUSSION AND CONCLUSION
The surgical approach was chosen according to cholesteatoma extension; canal wall-down mastoidectomy was performed in 50% of patients, followed by atticotomy in 31.8% and canal wall-up in 18.2%. There was a statistical significant improvement from pre to post-operative median air-bone gap. Median follow up was 38.1 months. Relapse occurred in 36.4% of patients. Otorrhea at the day of surgery was associated with relapse. None of the other studied factors correlated with relapse in our population.

Cholesteatoma in pediatric age is particularly aggressive, and treatment should eradicate the disease, while preserving auditory function. Surgical approach must take into account several factors aiming at the best results possible.

Bibliography

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