Benign paroxysmal vertigo of childhood, the most common vestibular pathology in children

Berina Ihtijarevic1, Caroline Cox2, Sebastian Janssens de Varebeke2, Katrien Ketelslagers2, Kristof Deben2, Tony Cox2, An Boudewyns1, Josine Widdershoven1,3

1Department of Otorhinolaryngology & Head and Neck Surgery, University Hospital of Antwerp, Antwerp, Belgium
2Department of Otorhinolaryngology & Head and Neck Surgery, Jessa Hospital, Hasselt, Belgium
3Department of Otorhinolaryngology & Head and Neck Surgery, Maastricht University Medical Centre, The Netherlands

Conclusion

Our data confirm that BPV represents the most common cause of vertigo in children. Although symptoms might be quite debilitating, the present data show that this is a benign and, in most cases, self-limiting condition. Reassurance of the child and his parents is the cornerstone of the treatment and medication is rarely needed.

Introduction

Vertigo is uncommon in children. Because there is a wide range of underlying causes, a thorough investigation of signs and symptoms along with vestibular examination is required to establish a correct diagnosis.

This study aims to describe symptoms and results of vestibular examination in children with benign paroxysmal vertigo of childhood (BPV).

Methods

We performed a retrospective study in 23 children, 11 boys and 12 girls referred for vestibular examination during a 2-year period. Age ranged from 8 to 15 years.

Data from history, clinical examination, audiometry and electro and/or video nystagmography were analysed.

Results

The most common cause of vertigo in our study population of children with vertigo was BPV (24%).

Symptoms occurred approximately monthly with a mean duration of 3.5 hours. Symptoms were commonly elicited by visual triggers, fatigue or a stressful event, and disappeared after sleep. 74% experienced motion sickness. Less than half of the BPV patients reported headache during or after a vertigo attack. Vestibular examination typically showed a hyper reaction during caloric testing. The vast majority (96%) had normal hearing thresholds.

Medical treatment consisting of beta-blockers was indicated in only 4% of BPV patients.

<table>
<thead>
<tr>
<th>Family history of migraine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
</tr>
<tr>
<td>Negative</td>
</tr>
<tr>
<td>68%</td>
</tr>
<tr>
<td>32%</td>
</tr>
</tbody>
</table>

Table 1: Illustrates the positive family history of migraine.

Figure 1,2: Vestibular examination in children with rotational testing (1) and caloric testing with electrodes (2).

Conclusion: Our data confirm that BPV represents the most common cause of vertigo in children. Although symptoms might be quite debilitating, the present data show that this is a benign and, in most cases, self-limiting condition. Reassurance of the child and his parents is the cornerstone of the treatment and medication is rarely needed.