LANGUAGE SCREENING IN CHILDREN WITH CONGENITAL HYPOTHYREOIDISM

GEJÃO, M. G.; LAMÔNICA, D. A. C.

Departamento de Fonoaudiologia, Faculdade de Odontologia de Bauru, USP
In congenital hypothyroidism (CH) there is insufficient thyroid hormones production, important for the nervous system development.

Its early detection and treatment beginning make possible sequels prevention in development skills.

Cognitive and motor deficits have been observed, mainly when the treatment is late and/or the hormonal alteration is more serious.

The literature has been observed language delay, articulatory, phonological, morphosintatics and understanding, reduced vocabulary and nomination difficulty.

(BARGAGNA et al., 2000; LUDUEÑA et al., 2002; ALMACHE, 2003; OERBECK et al., 2003; ROVET et al., 2005; KEMPERS et al., 2006; GEJÃO et al., 2008)
To screening the language development in children with CH treated early by a neonatal screening program

(26 girls and 17 boys)
Methods

Approval of the Committee of Ethics in Researches with human beings, obeying the Resolution 196/96.

Inclusion criteria

- 2 to 36 months of age;
- CH detected by the neonatal screening.
- Treatment in the program of neonatal screening of the São Paulo center-west with appropriate adhesion (Health Ministry)
- Accomplished attendance with a multidisciplinary team (pediatrician neurologist, nutritionist and psychologist)
- Treatment with hormonal replacement for at least 1 month
- To not present other genetic or neurological alterations proven, which are not part of the CH picture
Methods

Evaluation

- Early Language Milestone Scale (ELM Scale) (COPLAN, 1993)
  - Auditory receptive functions
  - Auditory expressive functions
  - Visual functions

Statistical method

- Descriptive analysis, considering the norms proposed by the tests.
### Methods

**Table 1. Distribution of the casuistic by the age group.**

<table>
<thead>
<tr>
<th>Age group</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-12 months</td>
<td>20 (42.56)</td>
</tr>
<tr>
<td>13-24 months</td>
<td>10 (21.28)</td>
</tr>
<tr>
<td>25-36 months</td>
<td>13 (27.66)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47 (100.00)</strong></td>
</tr>
</tbody>
</table>
### Results

**Table 1. Performance in the ELM Scale.**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Auditory expressive n (%)</th>
<th>Auditory receptive n (%)</th>
<th>Visual n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate</td>
<td>27 (57.45)</td>
<td>43 (91.49)</td>
<td>44 (94.62)</td>
</tr>
<tr>
<td>Altered</td>
<td>10 (21.28)</td>
<td>4 (8.51)</td>
<td>3 (6.38)</td>
</tr>
<tr>
<td>Total</td>
<td>47 (100.00)</td>
<td>47 (100.00)</td>
<td>47 (100.00)</td>
</tr>
</tbody>
</table>
Study with children with CH also observed expressive language skills inferior to the receptive ones. (BARGAGNA et al., 2000; ALMACHE, 2003; OERBECK et al., 2003, KEMPERS et al., 2006, ROVET, 2005)

The study discoveries suggest the need of the Speech-Language Pathologist to insert in the Neonatal Screening Programs professionals team that accompany longitudinally the individuals' development with CH, once these children have the risk for linguistic development alterations and, therefore, they need communicative development attendance.
Most of the assessed children in this study presented adequate performance for the evaluated abilities. Among the linguistic skills evaluated, the auditory function was shown more committed in relation to auditory receptive and visual functions.
References


