INFANTS WITH NEUROBLASTOMA PRESENTING WITH SYMPTOMATIC EPIDURAL COMPRESSION (EC)

Lucia Quaglietta, Maria Capasso, Anna Nastro, Giuseppe Cinni, Maria Giuliano, Anna Rita Gigliotti, Carlo Gandolfo, Stefania Sorrentino, Marcello Ravegnani and Bruno De Bernardi.
Santobono-Pausilipon and Giannina Gaslini Children’s Hospitals, Napoli and Genova, Italy

BACKGROUND

- EC occurring in neuroblastoma requires immediate treatment.
- There are no established guidelines for treatment of this particular clinical condition. Both chemotherapy, neurosurgery and radiotherapy are in fact effective in relieving EC, but all are associated with late complications.
- Infants are conceivably more susceptible to develop late effects. No publications-focused on this issue are available.

OBJECTIVE

To describe treatment, clinical course and late complications of six infants with neuroblastoma presenting with EC.

PATIENTS AND METHODS


Subjects: of 109 children diagnosed with neuroblastoma at Santobono-Pausilipon and Giannina Gaslini Children’s Hospital, eleven (10.1%) had EC, of whom 6 (5.5%) were infants. These 6 infants are the object of this study.

Grading of motor deficit:

1. mild hypotonia with walking disability for legs, or difficulty in raising hands above head for arms,
2. moderate hypotonia with inability to walk and make movements against gravity, or raise the hands above the head,
3. severe hypotonia with paraplegia, no elicitable tendon reflexes or muscular movements.

CONCLUSIONS

- Both institutions have an expert multidisciplinary team for treatment of EC.
- Treatment for those patients was individualized and mainly depended on the entity and evolution of motor deficit.
- In case of neurosurgical intervention, laminoplasty** was preferred to laminectomy.
- The good functional outcome of our patients may depend on a combination of the following factors:
  1. early detection of symptoms of EC,
  2. lack of Grade 3 motor deficit at diagnosis,
  3. rapidity of diagnostic work-up,
  4. type of neurosurgical approach, when needed.

Patient Features at Diagnosis

<table>
<thead>
<tr>
<th>Patients</th>
<th>Sex</th>
<th>Age (mos)</th>
<th>Age (mos)</th>
<th>Sex</th>
<th>Age (mos)</th>
<th>Sex</th>
<th>Age (mos)</th>
<th>Sex</th>
<th>Age (mos)</th>
<th>Sex</th>
<th>Age (mos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>3</td>
<td>1</td>
<td>M</td>
<td>3</td>
<td>M</td>
<td>3</td>
<td>M</td>
<td>3</td>
<td>M</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>F</td>
<td>6</td>
<td>1</td>
<td>M</td>
<td>3</td>
<td>M</td>
<td>3</td>
<td>M</td>
<td>3</td>
<td>M</td>
<td>3</td>
</tr>
</tbody>
</table>

CLINICAL FINDINGS AND SYMPTOMS OF EC AT DIAGNOSIS, TREATMENT AND OUTCOME

<table>
<thead>
<tr>
<th>Pt 1</th>
<th>At Dx</th>
<th>At 3 yrs</th>
<th>Pt 2</th>
<th>At Dx</th>
<th>At 23 mos</th>
<th>Pt 3</th>
<th>At Dx</th>
<th>At 13 mos</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At Dx</td>
<td>At 10 m</td>
<td></td>
<td>At Dx</td>
<td>At 9 m</td>
<td></td>
<td>At Dx</td>
<td>At 5 yrs</td>
</tr>
</tbody>
</table>

REFERENCES