Pylocytic Cerebellar astrocytomas in children: Long-term outcome and quality of life

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no disclosure
Goal of the study

- To review the long-term follow-up of children operated on for cerebellar pylocitic astrocytomas at the Dept. of Neurosurgery in Verona between 1995 and 2015
43 children (55% males, 45% females)

Clinical, radiological, surgical and outpatient medical records were reviewed

4 pts. excluded because of missing data

32 (84.2%) children (or parents) interviewed by phone, on average 11 yrs. after surgery

for follow-up update

PedsQL (Pediatric Quality of Life Inventory) questionnaire

administered to the parents (Group A)

administered directly to the patients (Group B) for those > 18 yrs.
Results

HRQOL = Health-Related Quality of Life

Items (23)

- Physical health (8)
- Psychosocial health (5)
- Social life (5)
- School-Work (5)

Physical health Score (8)

Psychosocial health Score (15)

HRQOL totale

HRQOL = Physical health Score + Psychosocial health Score
Surgery

1. 72% Craniotomy;
   28% craniectomy (abandoned in 2006)

2. **Total removal 73.7%**
   Subtotal removal 26.3%

3. **Hydrocephalus in 66.7%**
   3 pts. needed a VP shunt for persistent H

3. **Post-op complications (13%)**:
   - 2 pseudomeningocele (5.2%)
   - 1 extradural hematoma (2.6%)
   - 1 wound dehiscence (2.6%)
   - **1 death for acute pneumocephalus (2.6%)**
Results
Clinical Follow-up

- **Mean follow-up:** 10 yrs. (8,4 mos.- 21.2 yrs.)
- **Mean age:** 19.3 yrs. (3.1-36.4 yrs.)
- 31 pts. free of disease
- 7 pts. stable residual tumor
- **51.4% presents some neurological deficits, but with minor or no impact on QoL**

<table>
<thead>
<tr>
<th>Disturbo</th>
<th>N</th>
<th>%</th>
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<tbody>
<tr>
<td>Visual disturbances</td>
<td>9</td>
<td>24.3</td>
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<tr>
<td>Tremor</td>
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<td>24.3</td>
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<tr>
<td>Ataxia</td>
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<td>21.6</td>
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<tr>
<td>Strabismus</td>
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<td>13.5</td>
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<td>Motor weakness</td>
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<tr>
<td>Dysarthria</td>
<td>1</td>
<td>2.7</td>
</tr>
</tbody>
</table>
Results

QoL

- **HRQOL tot.** between normal pop. and those with chronic disease
- **Physical health** similar to normal pop.
- **Emotional items** significantly worsen than normal pop. and chronic dis.
- **School-Work** similar to normal pop.

- In group A, all pts. attend regular school, 2 with support
- In group B
  - 2 High School
  - 4 University
  - 9 employed
  - 2 unemployed
Limitations

- Questionnaire related to the QoL in the last month
- In group A the questionnaire was given to the parents, not to the patient
- Cognitive deficits were not specifically evaluated

Conclusions

- As a group, children with CPAs have long-term QoL indicators similar to those of the general population
- Larger studies to clarify the impact of other variables, such as hydrocephalus, tumor location, socioeconomic issues,...