Rarity Of Indications For Surgical Treatment For Infantile Hemangiomas After Introduction Of Propranolol


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Since 2008, number of authors advocated the use of propranolol in the treatment of infantile hemangiomas.

This presentation attempts to characterize current role of surgery in the treatment of infantile hemangiomas.

All pictures are presented with parents agreement.
PATIENTS

- Period of accrual 2009-2011
- 203 patients with infantile hemangiomas
- 157 girls and 46 boys
- Age range 0.3 months – 5.5 years (median 4.7 months)
PATIENTS

- Criteria of inclusion:
  - location in „so called” critical regions orbit, lips, nose, ear, joints, fingers, genitalia, massive involvement of the internal organs, urinary/airway/GI tract obstruction
  - very rapid growth
  - size > 5 cm
  - ulceration/major cosmetic impairment

- Treatment – propranolol orally dosed from 1.2 to 3.8 mg/kg/day
**PATIENTS - CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Summary</th>
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<tbody>
<tr>
<td>Number of patients</td>
</tr>
<tr>
<td>Median age (months)</td>
</tr>
<tr>
<td>Location:</td>
</tr>
<tr>
<td>- limbs</td>
</tr>
<tr>
<td>- head and neck</td>
</tr>
<tr>
<td>- trunk</td>
</tr>
<tr>
<td>- pelvis</td>
</tr>
<tr>
<td>- internal organs</td>
</tr>
<tr>
<td>Number of lesions:</td>
</tr>
<tr>
<td>- single</td>
</tr>
<tr>
<td>- multiple</td>
</tr>
<tr>
<td>Ulceration</td>
</tr>
</tbody>
</table>
RESULTS

Primary assessment of the response (after first month of treatment) -

- Progression: 0 pts.
- Stabilization: 8 pts. (4%)
- Regression: 195 pts. (96%)
203
no. of registered pts.

52
pts. who completed the treatment

151
pts. under the treatment
RESULTS vs. age  52 pts who completed the treatment

<table>
<thead>
<tr>
<th></th>
<th>Start of the treatment under the age of 6 months (35 pts)</th>
<th>Start of the treatment over the age of 6 months (17 pts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progression</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Stabilization</td>
<td>1 (2,85%)</td>
<td>1 (5,9%)</td>
</tr>
<tr>
<td>Regression:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-75%</td>
<td>5 (14,3%)</td>
<td>6 (35,3%)</td>
</tr>
<tr>
<td>75-100%</td>
<td>29 (82,85%)</td>
<td>10 (58,8%)</td>
</tr>
<tr>
<td>Residual scar/fatty tissue/ excess of skin</td>
<td>9 (25,7%)</td>
<td>9 (52,9%)</td>
</tr>
</tbody>
</table>
RESULTS vs. age

Propranolol started under the age of 6 months

- 83% (0 ÷ 25%)
- 3% (25 ÷ 75%)
- 14% (75 ÷ 100%)

Propranolol started over the age of 6 months

- 59% (0 ÷ 25%)
- 35% (25 ÷ 75%)
- 6% (75 ÷ 100%)
RESULTS: complementary surgery vs. age at starting propranolol

- Under 6 months:
  - Surgery: 20%
  - No Surgery: 80%
- Over 6 months:
  - Surgery: 35.3%
  - No Surgery: 64.7%
RESULTS: effect of propranolol
RESULTS: effect of propranolol
RESULTS: supplementary surgery

Primary view

After propranolol

After supplementary surgery
There were no complications related to propranolol which led to unplanned hospitalization.
CONCLUSIONS

- Patients with infantile hemangiomas have benefit from the use of oral propranolol.

- Propranolol administered orally decrease the need for complementary surgical corrections.

- Propranolol is more effective in younger pts, particularly in those under 6 months of age.
Thank you for your attention