A Clinical Study on Parotid Tumors in Children and Adolescents

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In children and adolescents under 20 years of age, tumors of the parotid gland are relatively rare. Six such patients with parotid tumors were treated at Tenri Hospital between 1997 and 2011. There were 5 males and 1 female and the mean age was 12 years. Histologically, pleomorphic adenoma was observed in 5 patients, and rhabdomyosarcoma in 1 patient. Surgery was performed for the 5 pleomorphic adenomas. There were no significant differences in the operating time and intra-operative blood loss among these 5 cases and 144 adult cases. In the case of rhabdomyosarcoma, the 4-year-old patient underwent a total parotidectomy. According to the Intergroup Rhabdomyosarcoma Study-IV, which was mostly used for the treatment of rhabdomyosarcoma, chemotherapy using vincristine, dactinomycin, and cyclophosphamide was performed as a postoperative treatment. Our patient is currently alive without local recurrence or distant metastasis.

Keywords: parotid tumor in children and adolescents, pleomorphic adenoma, rhabdomyosarcoma

References
19) Hicks J and Flaitz C: Rhabdomyosarcoma of the head and neck tumor. Department of Otolaryngology, Tenri Hospital Corresponding Author Address: Ryusuke Hori rhori@tenriyorozu.jp


CT (left) and MRI (right) findings in the case of rhabdomyosarcoma
The rhabdomyosarcoma is located in the left parotid gland.

Immunohistochemistry of rhabdomyosarcoma
H&E staining (a), desmin staining (b), myoglobin staining (c), and sarcomeric actin staining (d) were performed. Specimens stain positively for desmin, myoglobin, and sarcomeric actin (arrow).

Summary of five pleomorphic adenomas and one rhabdomyosarcoma.

<table>
<thead>
<tr>
<th>Case</th>
<th>Age</th>
<th>Sex</th>
<th>FNAC</th>
<th>Pathology</th>
<th>Operation time (minutes)</th>
<th>Bleeding (g)</th>
<th>Location of tumor</th>
<th>Diameter (cm)</th>
<th>Complication</th>
<th>Follow-up (years)</th>
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<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>M</td>
<td>class II PA s/o</td>
<td>PA</td>
<td>35</td>
<td>20</td>
<td>S</td>
<td>2.7</td>
<td>no</td>
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<tr>
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<td>14</td>
<td>M</td>
<td>F</td>
<td>PA</td>
<td>87</td>
<td>35</td>
<td>S-D</td>
<td>2.4</td>
<td>transient facial palsy</td>
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<td>3</td>
<td>15</td>
<td>F</td>
<td>S</td>
<td>PA</td>
<td>107</td>
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<td>frey syndrome</td>
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</tr>
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<td>F</td>
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<tr>
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<td>class V RMS</td>
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<td>245</td>
<td>S-D</td>
<td>4</td>
<td>facial palsy</td>
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</tbody>
</table>

PA: pleomorphic adenoma
RMS: rhabdomyosarcoma
S: superficial tumor
D: deep tumor