Spindle cell lipoma of the oral cavity


Abstract. A case of intraoral spindle cell lipoma in the left cheek of a 55-year-old man is reported.

Spindle cell lipoma is an uncommon and histologically distinct variant of lipoma that was first recognized as a separate entity by Enzinger & Harvey. The most significant feature of this innocuous lesion is its ability to simulate a liposarcoma, especially the myxoid variant. Histologically, spindle cell lipoma is characterized by replacement of mature fat cells by spindle cells that are closely associated with a mucoid matrix and collagen bundles. The tumor typically occurs in the posterior neck, upper back, or shoulder region of elderly men. Five cases of spindle cell lipoma have been reported in the oral cavity, two affecting the anterior floor of the mouth, two the tongue, and one the hard palate. A case reported to occur in the cheek is not included, as it was not specifically stated that the tumor occurred in the mouth. A spindle cell lipoma in the cheek of a 55-year-old man is reported.

Case report

A 55-year-old man was examined for a large painless mass in the left cheek that had been enlarging for "many years". No history of trauma or inflammation of the area could be recalled. Intraoral examination showed a...
Discussion

Spindle cell lipomas account for approximately 1.5% of all adipocytic tumors and 1/60th of the incidence of ordinary lipomas. Although the buccal mucosa is frequently involved by lipomas, no case of spindle cell lipoma has been previously reported in this region. The relevant clinical information of the intracral cases is summarized in Table 1.

The relative proportions of lipocytes and spindle cells in the present case varied markedly in different tumor sections, as is reported to occur both within the same lesion as well as among different ones. In most spindle cell lipomas, both elements are present in almost equal proportions; in some cases, spindle cell proliferation is localized, and the tumor resembles an ordinary lipoma, while in others it is widespread, obscuring its lipomatous nature. The presence of numerous mast cells is a constant feature of the lesion.

Immunohistochemically, spindle cells do not react with antibodies to S-100 protein and factor VIII, excluding a nerve-sheath or endothelial differentiation, respectively. Negative immunostaining is also reported for the myeloid/histiocyte antigen MAC-387, collagen type IV, and laminin2. Positive reaction with antivimentin is expected as this is a common mesenchymal-cell antigen, while lack of reaction for desmin and actin can preclude a myocytic differentiation of the tumor cells.

It is suggested that spindle cells are analogous to the nonlipoblastic stellate mesenchymal cells of the primitive fat lobules, which have lost their ability to differentiate to lipocytes but are capable of collagen synthesis. The presence of mature lipocytes and fibroblastic cells in spindle cell lipoma probably reflects the potential of tumor cells to differentiate to both fat-storing and collagen-producing cells.

Table 1. Clinical features and follow-up data of reported intraoral spindle cell lipomas

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Age (years)</th>
<th>Sex</th>
<th>Location</th>
<th>Size (mm)</th>
<th>Duration</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>McDANIEL et al.10</td>
<td>33</td>
<td>M</td>
<td>Anterior floor of mouth</td>
<td>10</td>
<td>2 years</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>F</td>
<td>Tongue</td>
<td>45x35</td>
<td>1 year</td>
<td>–</td>
</tr>
<tr>
<td>CHRISTOPoulos et al.4</td>
<td>58</td>
<td>M</td>
<td>Hard palate</td>
<td>20x20x10</td>
<td>–</td>
<td>2 years NER</td>
</tr>
<tr>
<td>LEVY &amp; GODING3</td>
<td>74</td>
<td>F</td>
<td>Anterior floor of mouth</td>
<td>15x13x10</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>LOMBAIRDI &amp; ODELL9</td>
<td>68</td>
<td>M</td>
<td>Dorsum of tongue</td>
<td>40x20x12</td>
<td>“years”</td>
<td>2 years NER</td>
</tr>
<tr>
<td>Present case</td>
<td>52</td>
<td>M</td>
<td>Cheek</td>
<td></td>
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</tr>
</tbody>
</table>

NER = no evidence of recurrence.

References


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