Metastatic Carcinoma in Spleen

Case # B16-00609

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Signalment and History

• 7 year old spayed female Chihuahua
• Presented at UGA oncology service with a submandibular mass
• Radiograph....multiple pulmonary and splenic nodules
• FNA......Diagnosed as epithelial neoplasia of thyroid origin
• Treated with Palladia (first FDA-approved drug for canine cancer )... Stable
• Presented: ~ 6months
• Foreign body laparotomy....splenic nodules
• Splenectomy

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Differential diagnoses

• Salivary gland carcinoma
• Adrenocortical carcinoma
• Thyroid C cell carcinoma
• Metastatic melanoma
Diagnosis

Spleen: Metastatic carcinoma primarily from salivary gland
**Discussion**

<table>
<thead>
<tr>
<th>IHC Marker</th>
<th>Neoplasm/origin</th>
<th>Coco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cytokeratin (AE1/AE3)</td>
<td>Carcinoma</td>
<td>++++</td>
</tr>
<tr>
<td>Cytokeratin (Lu-5)</td>
<td>Carcinoma</td>
<td>++++</td>
</tr>
<tr>
<td>Cytokeratin (5/6)</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Cytokeratin (LMW)</td>
<td>++++</td>
<td></td>
</tr>
<tr>
<td>Vimentin</td>
<td>Sarcoma</td>
<td>-</td>
</tr>
<tr>
<td>Melan-A</td>
<td>Melanoma</td>
<td>++++</td>
</tr>
<tr>
<td>Alcian blue</td>
<td>Mucin secretion</td>
<td>+</td>
</tr>
<tr>
<td>Calcitonin</td>
<td>Parathyroid</td>
<td>-</td>
</tr>
<tr>
<td>Chromagranin A, Synaptophysin</td>
<td>Neuroendocrine</td>
<td>-</td>
</tr>
<tr>
<td>Thyroglobin</td>
<td>Thyroid carcinoma</td>
<td>-</td>
</tr>
</tbody>
</table>
Discussion

- Salivary gland neoplasms are uncommon in dogs
- Show a wide range of morphological diversity
- Clear cell salivary gland neoplasms are difficult to differentially diagnose. Further IHC may require full characterization (e.g., CEA, calponin)
- Very little information regarding salivary gland neoplasms expressing Melan-A
- Presence of corpora amylecia is not common but reported in eyes with melanoma

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Discussion

• In literature CK18 is only observed in malignant melanoma, however CK AE1/AE3 immunostaining was negative
• Additional IHC markers (e.g, S-100, HMB-45, MART-1) may be required to rule in clear cell melanoma
• We are following up Coco and so for she is doing well
Acknowledgements

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References


