Application and utility of The Milan System for Reporting Salivary Gland Cytology (MSRSGC) in a single Japanese academic institution

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Cohort Summary

- Data collection period: Jan-Dec, 2018
- Total FNA cases: 73
- Histological confirmed cases 46
- Age: Ave. 56 y/o (17-91 y/o)
- Gender: F/M=37/36
- Site: Parotid 47, Submandibular 11, Oral 5, Lymph node & cervical mass 10

<table>
<thead>
<tr>
<th>MS Category</th>
<th>Total Cytology cases</th>
<th>History cases</th>
<th>Malignant cases</th>
<th>ROM</th>
<th>Final histology (Malignant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I ND</td>
<td>19 (26%)</td>
<td>11 (24%)</td>
<td>0</td>
<td>0%</td>
<td>Sialadenitis, Epithelioid granuloma, PA, WT, Schwannoma (Fig 1)</td>
</tr>
<tr>
<td>II NN</td>
<td>6 (8%)</td>
<td>1 (2%)</td>
<td>0</td>
<td>0%</td>
<td>IgG4-related sialadenitis (Fig 2)</td>
</tr>
<tr>
<td>III AUS</td>
<td>8 (11%)</td>
<td>5 (11%)</td>
<td>4</td>
<td>80%</td>
<td>FL, MALT (Fig 3), NHL, infarcted WT (Fig 4), Metastatic SCC</td>
</tr>
<tr>
<td>IV-A Benign</td>
<td>21 (28%)</td>
<td>13 (28%)</td>
<td>0</td>
<td>0%</td>
<td>PA, WT, BCA</td>
</tr>
<tr>
<td>IV-B SUMP</td>
<td>9 (12%)</td>
<td>7 (15%)</td>
<td>4</td>
<td>57%</td>
<td>MEC (Fig 5), SC (Fig 6), MyC ex PA, PA, nodular oncocytic hyperplasia</td>
</tr>
<tr>
<td>V Susp M</td>
<td>4 (6%)</td>
<td>4 (9%)</td>
<td>4</td>
<td>100%</td>
<td>AdCC, DLBCL</td>
</tr>
<tr>
<td>VI Malignant</td>
<td>6 (8%)</td>
<td>5 (11%)</td>
<td>5</td>
<td>100%</td>
<td>MEC, AdCC, CKPA, PDC</td>
</tr>
</tbody>
</table>

Material and Methods

- FNA cytology samples received between January and December 2018, from the salivary glands and the neck mass were assigned a diagnostic category from the MSRSGC as follows: non-diagnostic, non-neoplastic, atypia of undetermined significance (AUS), neoplasm-benign, neoplasm of uncertain malignant potential (SUMP), suspicious for malignancy (SM), or malignant.
- Correlation with the available follow-up histopathology was performed, and the ROM was calculated for all diagnostic categories.

Results

- A total of 73 aspirates were collected and classified as follows: 26% non-diagnostic; 8% non-neoplastic; 11% AUS; 28% neoplasm-benign; 12% SUMP; 6% SM; 8% malignant in MSRSGC.
- Histopathology was available for 46 cases.
- The ROM of cases with histologic follow-up for the different categories were as follows: 0% non-diagnostic; 0% non-neoplastic; 80% AUS; 0% neoplasm-benign; 57% SUMP; 100% SM; 100% malignant.
- The ROM in AUS was much higher (80%) than expected by MSRSGC (20%), and low grade malignant lymphoma (MALT lymphoma and follicular lymphoma) and metastatic squamous cell carcinoma represented them.
- The ROM in SUMP was also higher (57%) than MSRSGC average (35%), and low grade mucoepidermoid carcinoma, secretory carcinoma and carcinoma ex pleomorphic adenoma cases corresponded to this group.

Conclusions

- The AUS category mostly tended to be lymphocytic lesions including low-grade lymphoma and/or atypical Warthin tumor.
- The SUMP category consisted of low grade carcinomas including ME, SC and benign tumors.
- To reduce the ROMs on AUS and SUMP categories, an appropriate ancillary study and a clinicopathologic correlation are required.

Disclosure Statement

The authors have indicated that they have no conflicts of interest that relate to the content of this presentation.