



Application and utility of The Milan System for Reporting Salivary Gland Cytopathology (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

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.

MS Category	Total Cytology cases	Histology cases	Malignant cases	ROM	Final histology (Malignant)
I ND	19 (26%)	11 (24%)	0	0%	Sialadenitis, Epithelioid granuloma, PA, WT, Schwannoma (Fig 1)
II NN	6 (8%)	1 (2%)	0	0%	IgG4-related sialadenitis (Fig 2)
III AUS	8 (11%)	5 (11%)	4	80%	FL, MALT (Fig 3), NHL, infarcted WT (Fig 4), Metastatic SCC
IV-A Benign	21 (28%)	13 (28%)	0	0%	PA, WT, BCA
IV-B SUMP	9 (12%)	7 (15%)	4	57%	MEC (Fig 5), SC (Fig 6), MyC ex PA, PA, nodular oncocyctic hyperplasia
V Susp M	4 (6%)	4 (9%)	4	100%	AdCC, DLBCL
VI Malignant	6 (8%)	5 (11%)	5	100%	MEC, AdCC, CXPA, PDC
	73 (100%)	46 (100%)	17 (38%)		

PA: pleomorphic adenoma, WT: Warthin tumor, FL: follicular lymphoma, MALT: MALT lymphoma, NHL: Non-Hodgkin lymphoma
 SCC: squamous cell carcinoma, BCA: basal cell adenoma
 MEC: mucoepidermoid carcinoma, SC: secretory carcinoma
 MyC: myoepithelial carcinoma, AdCC: adenoid cystic carcinoma
 DLBCL: diffuse large B cell lymphoma
 CXPA: carcinoma, ex pleomorphic adenoma
 PDC: poorly differentiated carcinoma

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 MEC, SC and benign tumors.

• To reduce the ROMs on AUS and SUMP categories, an appropriate ancillary study and a clinicopathologic correlation are required.

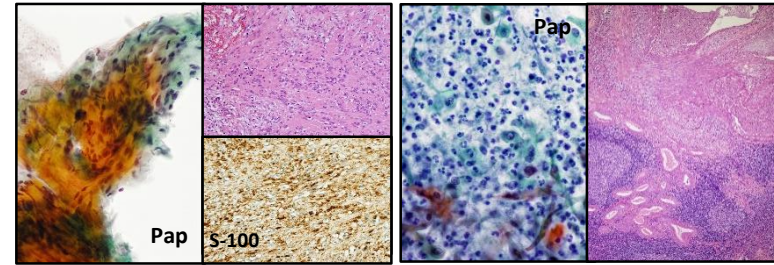


Fig 1. Schwannoma
“Cytological Findings”
“a few bland-spindle cells”

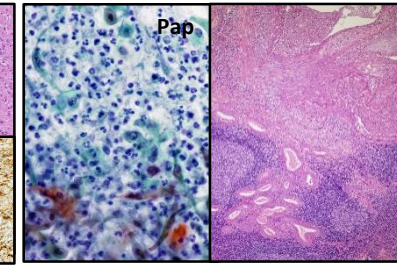


Fig 4. Infarcted Warthin tumor
“neutrophils and degenerated keratinized cells”

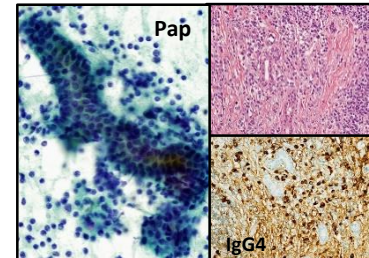


Fig 2. IgG 4-related sialadenitis
“cohesive epithelial cell clusters with abundant lymphocytes”

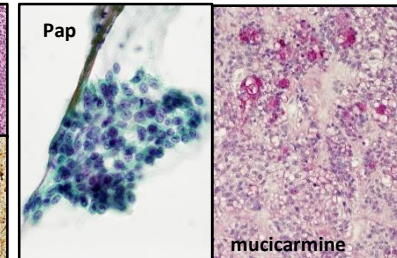


Fig 5. Low-grade mucoepidermoid carcinoma
“Mild atypical epithelial cell clusters, inconspicuous mucin”

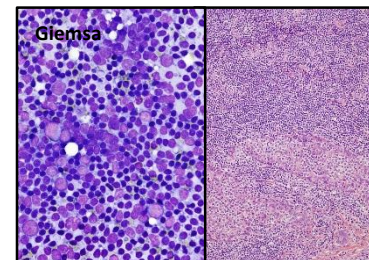


Fig 3. MALT lymphoma
“variety-sized rich lymphocytes, no epithelial cell cluster”

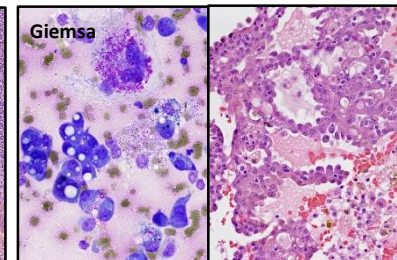


Fig 6. Secretory carcinoma
“atypical vacuolated epithelial cells and eosinophilic granules”

Disclosure Statement

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