**IAP-ID Symposium: Salivary Gland Pathology- Solving Difficult Cases & Mastering Emerging Concepts**

Date: 12th December 2024

Time: 2:00 pm to 4:00 pm

Venue: SCB Medical College, Cuttack

**Detailed Scientific Program**

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| **Time** | **Topic** | **Faculty** |
| **2:00 to 2:05 pm** | Introduction to the topic | Dr Nalini Gupta, PGIMER, Chandigarh |
| **2:05 to 2:25 pm** | The Latest WHO classification of Salivary gland tumors | Dr Munita Menon, TMH, Mumbai |
| **2:25 to 2:45 pm** | Newer entities and the approach to diagnosis | Dr Aanchal Kakkar, AIIMS, New Delhi |
| **2:45 to 3:15 pm** | Ancillary techniques in diagnosis of salivary gland tumors: a good servant but a bad master? | Dr Abbas Agaimy, University of Erlangen, Germany |
| **3:15 to 3:45 pm** | Unsual tumors at unusual sites - Case based discussion of salivary gland-type neoplasms | Dr Vijayalakshmi Ananthanarayanan, University of Illinois, USA |
| **3:45 to 4:00 pm** | The Milan System of Reporting Salivary Gland Cytopathology: Second Edition | Dr Nalini Gupta, PGIMER, Chandigarh |
|  | Q and A session |  |

**Title of the talk: The Latest WHO classification of Salivary gland tumors**

**Dr Munita Menon**

TMH, Mumbai

**YET TO RECEIVE**

**Title of Talk: Newer entities and the approach to diagnosis**

Dr. Aanchal Kakkar, MD (AIIMS)

Additional Professor

Dept. of Pathology
All India Institute of Medical Sciences

New Delhi

In recent years, the increasing accessibility to molecular genetic analysis accompanied by expanded immunohistochemical panels has led to a refinement in nomenclature of salivary gland neoplasms and has also resulted in the recognition of new tumor entities. Due to their rarity of these recently described entities, and the marked heterogeneity in morphology inherent to most salivary gland neoplasms, their diagnosis often presents significant challenges. However, knowledge of histological characteristics supported by use of appropriate ancillary techniques can assist in arriving at an accurate diagnosis.

Some of the newer entities being covered in this talk include intercalated duct lesions, striated duct adenoma and sclerosing polycystic adenoma among benign neoplasms, and intraductal, carcinoma, microsecretory adenocarcinoma, sclerosing microcystic adenocarcinoma, mucinous adenocarcinoma, muco-acinar carcinoma, NUT-carcinoma and adamantinoma-like Ewing sarcoma among malignant neoplasms. The diagnostic approach based on morphology and immunohistochemistry, and relevant molecular testing will be discussed. While some of these newly described neoplasms have made their way into the current WHO classification, the rest remain to be better characterized prior to their inclusion as distinct entities. In either situation, they are rare neoplasms, needing awareness among pathologists to include them in the differential diagnosis of salivary gland tumors.

**Title of the talk: Ancillary techniques in diagnosis of salivary gland tumors: a good servant but a bad master?**

**Dr Abbas Agaimy**

University of Erlangen, Germany

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**Title of Talk: Unusual tumors at unusual sites - Case based discussion of salivary gland-type neoplasms**

**Dr Vijayalakshmi Ananthanarayanan**

University of Illinois, USA

**Refining Differential Diagnoses for Salivary Gland Tumors in Uncommon Locations:**

-  Establish a diagnostic framework for distinguishing salivary gland tumors presenting in atypical locations from other diagnostic considerations

**Effective Use of Immunohistochemistry and Ancillary Methods in Diagnosis:**

-  Select and interpret relevant immunohistochemical and ancillary techniques to enhance diagnostic precision

**Navigating Staging and Prognostic Challenges for Salivary Gland Tumors in Uncommon Locations:**

-  Explore staging complexities and assess prognostic factors that impact clinical outcomes for salivary gland tumors occurring in uncommon locations

These are case based discussions and we will look at some common tumors but how the differential diagnosis changed based on the location and approach to clinch the diagnosis will be discussed.

**Title of the talk: The Milan System for Reporting Salivary Gland Cytopathology: Second Edition**

**Dr Nalini Gupta,** MD, DNB, MNAMS

Professor,

Department of Cytology and Gynaecological Pathology,

PGIMER, Chandigarh.

**Introduction:** The Milan System of Reporting of Salivary Gland Cytopathology (MSRSGC) is a standardized classification system developed to provide a consistent and uniform approach to the reporting and interpretation of salivary gland cytopathology specimens. It was created by an international group of professionals and was approved by the International Academy of Cytology (IAC) and the American Society of Cytopathology (ASC). It started in Milan in September 2015, and the atlas was released in 2018. Second edition came in the year 2023.

**Six Diagnostic Categories:** The MSRSGC comprises of six diagnostic categories to provide standardized terminology for reporting salivary gland cytopathology. These categories are:

a. Non-diagnostic

b. Non-neoplastic

c. Atypia of Undetermined Significance (AUS)

d. Neoplasm: Benign and salivary gland neoplasm of uncertain malignant potential [SUMP]

e. Suspicious for Malignancy

f. Malignant

**a. Non-diagnostic:** <20% of FNACs of salivary gland;

Diagnostic criteria: Inadequate specimen for interpretation due to technical reasons, insufficient cellular material, or obscuring factors, normal acinar cells in a clinically-defined nodule, non-mucinous cyst fluid only, poor-preservation of cells with artifacts such as improper staining, dilution with blood, clotted aspirate, air-dried smears.

Risk of malignancy (ROM): 15%; Management: Clinico-radiological correlation/ repeat aspiration

**b. Non-neoplastic:**

Criteria: Inflammatory, reactive, or benign lesions such as sialolithiasis, sialadenitis, sarcoidosis, tuberculosis, reactive lymphoid hyperplasia, infection/ inflammation.

ROM: 11%; Management: Clinical follow-up and radiological correlation

**c. Atypia of Undetermined Significance (AUS):** Less than 10% of FNACs of salivary gland;

Diagnostic criteria: Cellular atypia which is qualitatively and quantitatively insufficient for a diagnosis of salivary gland neoplasm e.g. reparative atypia, oncocytic or squamous metaplasia, non-mucinous cysts with atypical epithelial cells, mucinous cysts with minimal epithelial cells, lymphoid tissue where a diagnosis of lymphoreticular malignancy is not excluded.

ROM: 30%; Management: Surgery or repeat sampling, additional diagnostic procedures

**d. Neoplasm:** Benign- Category IVA; 30 to 40% of FNACs of salivary gland;

Criteria: Cytomorphology of pleomorphic adenoma (PA), Warthin tumor (WT), oncocytoma, lipoma, peripheral nerve sheath tumor, haemangioma, lipoma; ROM: <3%; Management: Surgical excision or Clinical follow-up.

d. Neoplasm: Salivary gland neoplasm of uncertain malignant potential [SUMP]; Category IVB;

Criteria: Neoplastic lesion; Indeterminate for a specific tumor type to differentiate between benign or malignant neoplasm such as Cellular neoplasm with basaloid cytomorphology [PA, Adenoid cystic carcinoma (AdCC), basal cell adenoma, basal cell adenocarcinoma, polymorphous adenocarcinoma (PAC), epithelial myoepithelial carcinoma], Cellular neoplasm with oncocytoid/ squamoid cytomorphology [WT, mucoepidermoid carcinoma (MEC), oncocytoma, secretory carcinoma, acinic cell carcinoma (ACC)], Cellular neoplasm with clear cells [epithelial myoepithelial carcinoma, myoepithelioma, MEC, ACC, secretory carcinoma], Low grade carcinoma; ROM: 35%; Management: Surgery

**e. Suspicious of malignancy:**

Criteria: Cytology suspicious of malignancy but not unequivocal for malignancy such as markedly pleomorphic malignant looking cells with poor preparation, dilution, obscuration, or few cytological findings of a malignant salivary gland neoplasm; ROM: 83%; Management: Surgery

**f. Malignant:**

Diagnostic criteria: Features of ACC, secretory carcinoma, salivary duct carcinoma, lymphoepithelial carcinoma, MEC, AdCC, myoepithelial carcinoma, sarcoma, lymphoma, and metastasis.

ROM: 98%; Management: Surgery

**Ancillary Testing Recommendations:** The MSRSGC emphasizes the utility of ancillary testing to complement cytomorphological assessment. Immunocytochemistry, molecular analysis, and other ancillary techniques are encouraged to aid in diagnosis and refine risk stratification.

**Risk Stratification and Management Guidelines:** The MSRSGC offers specific recommendations regarding the need for surgical excision, the extent of surgery, and the importance of multidisciplinary team collaboration for optimal patient care.

**Integration of Ancillary Imaging:** The integration of imaging findings such as ultrasound, MRI, and PET-CT, with cytopathology results is encouraged to enhance diagnostic accuracy and guide appropriate management decisions.

**Quality Assurance and Reporting Guidelines:** The MSRSGC also emphasizes the importance of quality assurance practices, including specimen adequacy, standardized reporting formats, and documentation of ancillary test results.

**Conclusion:** The MSRSGC aims to provide a standardized terminology and reporting system that promotes consistent communication between cytopathologists, surgeons, and oncologists, ensuring appropriate patient management based on the diagnostic category assigned. It emphasizes the importance of integrating clinical, radiological, and ancillary testing information to enhance diagnostic accuracy and guide patient care.