

JOINT EVENT

# 15<sup>th</sup> EUROPEAN PATHOLOGY CONGRESS &

## 14<sup>th</sup> International Conference on LEUKEMIA AND HEMATOLOGIC ONCOLOGY

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#### **Diagnostic challenges in head and neck cytopathology**

**Educational Session Description:** Fine needle aspiration has gained significant popularity in the evaluation of head and neck lesions due to its minimally invasive nature, not leaving a scar, and the possibility of repeating the procedure if it is needed. There is also an increased demand by clinicians and surgeons to receive a definitive diagnosis in order to avoid any unnecessary aggressive procedures. Moreover, additional diagnostic material is required for ancillary testing particularly whenever precision medicine is applicable. In general, head and neck mass lesions are relatively uncommon and may present at any age. Although metastases are the most common mass lesions in head and neck, a wide variety of both benign and malignant neoplasms including rare conditions, may arise primarily in this anatomic site. This video microscopy tutorial utilizes glass slides to review cytomorphologic features of challenging head and neck mass lesions along with differential diagnosis. The ancillary tests will be discussed when it is applicable. In addition, it will review several examples of HPV-related head and neck squamous cell carcinomas.

**Learning Needs/Professional Practice Gaps Addressed:** How will the proposed educational session address an identified professional practice gap? (Maximum 1250 characters) Head and neck mass lesions are relatively uncommon. They can present at any age as a painless or painful mass. The mass can be solid or cystic with a rapid or slow growth pattern. The underlying cause of the mass is widely variable including congenital, inflammatory/infectious, and neoplasms. Recognition of these different entities and a definitive diagnosis is necessary for patient care. Furthermore, the clinicians may request additional testing for patient care, for instance, HPV testing in head and neck squamous cell carcinomas. Rarity of these lesions is the main reason for not gaining much experience, particularly in pathology practices with relatively low volume. This video microscopy tutorial will cover challenging and less common cases in head and neck cytopathology. The cytomorphology of these cases will be reviewed and the ancillary tests will be discussed when it is necessary for a definitive diagnosis. What evidence demonstrates a need for this educational session among pathologists and/or laboratory professionals? (Maximum 1250 characters) We at Johns Hopkins Medicine, a large academic institution, receive many outside consultation cases of head and neck cytology cases which is evidence of a need for this educational session. There are many challenging consult cases due to their unique cytomorphology that require even consultation within the Division of Cytopathology. Head and neck cytology constitutes a small percentage of cytology cases even in a large academic institution, such as where I practice, with a very active department of otolaryngology. Reviewing the literature, there are a large number of head and neck cytology case reports but there are not many original articles of large series. There are a considerable number of occult malignancies initially presented as a metastatic lesion in head and neck which requires the pathologist's expertise to work up these cases. All of the above facts are convincing evidence of a need for this educational session.