Fine needle aspiration biopsy of HPV related squamous cell carcinomas of the oropharynx

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Human papilloma virus (HPV) related oropharyngeal squamous cell carcinoma (SCC) is a unique form of carcinoma that is important to identify for prognosis and treatment. Patients with HPV related oropharyngeal SCC have a much better prognosis and an enhanced response to radiation and chemotherapy compared to patients with conventional (HPV-negative) SCC of the head and neck. A significant proportion of patients with head and neck SCC present with neck masses as their first symptom. Fine needle aspiration (FNA) of cervical lymph nodes is fast, easy to perform, minimally invasive and accurate as a modality for the diagnosis of metastatic SCC. While morphologic features, particularly a non keratinizing phenotype, strongly predict an association with HPV, ancillary studies are often used to confirm the diagnosis. A common and readily available modality is immunohistochemical staining for p16, an excellent surrogate marker for transcriptionally active, high-risk HPV. Even focal, strong and confluent p16 positive staining of FNA biopsy material correlates with high risk HPV. Alternatively, high risk HPV can be detected directly by RNA in situ hybridization and other molecular based approaches, some of which are already routinely used in gynecologic cervical specimens. The objective of the presentation will be to discuss FNA of HPV related oropharyngeal SCC and to explore the different ancillary testing methods that are used to make the diagnosis.

Biography
Cory Bernadt has earned his MD and PhD from the University of Nebraska Medical Center. He has completed his Residency in Anatomic Pathology and Surgical Pathology Fellowship at the University of Iowa Hospitals and Clinics. He has received his training in Cytopathology from the University of Virginia. He is currently an Assistant Professor in the Department of Pathology and Immunology at Washington University School of Medicine in St. Louis.

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