Distant Metastatic Failure Patterns in Squamous Cell Cancer of the Oropharynx (SCCOP) Treated with Chemoradiation: the Impact of Human Papillomavirus (HPV)

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Human Papillomavirus (HPV)

- DNA virus shown to be tumorigenic in certain epithelial tissues (cervical, anogenital)

- High rate of detection in squamous cell carcinoma of the oropharynx (SCCOP)
  - Non-smokers, non-drinkers
  - Poorly differentiated, basaloid morphology, fewer p53 mutations
  - 60% reduction in disease-specific survival
  - Increased sensitivity to chemoradiation
  - Similar rate of distal metastases
Our Study

• Retrospective review of 285 patients with Stage III-IV SCCOP treated with chemoradiation from 2002 to 2013

• 35 total patients identified that failed with distant metastases (DM)
  o 27/245 HPV+ patients (11%)
  o 8/40 HPV- patients (20%)
Results

Sites of Metastatic Disease in HPV+ and HPV- SCCOP

- Peritoneum
- Pleura
- Brain
- Intra-abdominal lymph nodes
- Liver
- Bone
- Lung
Results

Timing of Distant Metastatic Failure

\[ p = 0.03 \]

Mean Number of Months to Develop Distant Metastases (DM)
Conclusions

- Distant metastases in HPV+ SCCOP occur later, involve more subsites, and involve sites atypical for smoking-related head and neck cancer.
- Patients may need more inclusive follow-up for longer periods of time.
- The role of imaging, such as PET/CT, may need to be expanded.
- HPV+ SCCOP is a unique disease process with a different etiology, histopathology, and clinical behavior than HPV-disease.