Floor of mouth window improves surgical access for trans-oral cancer surgery

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Statement of the Problem: The increasing incidence of HPV associated oropharyngeal cancer has sparked interest in minimally invasive transoral surgery as a primary treatment modality. However, proper surgical exposure and access to the tongue base is difficult to achieve. Many complex oral retraction systems have been developed in attempt to solve this problem but none work consistently or efficiently.

Methodology: This cadaveric study introduces the floor of mouth window: A simple adjunctive procedure done at the time of transoral resection and concurrent neck dissection that greatly improves surgical access to the tongue base while eliminating the need for oral retractors. It involves passing the oral tongue through the floor of mouth into the neck dissection field, thereby creating space for robotic or laser instruments to perform cancer resection. The floor of mouth is closed primarily in layers at the end of the procedure.

Findings: This study compares the tongue base exposure achievable with existing oral retractors to that achievable utilizing this novel technique. Our finding is that superior surgical exposure is attainable without retractors using the floor of mouth window.

Conclusion & Significance: We believe this technique may have a major impact on the management of oropharyngeal cancers because having a simple, reproducible method to access the tongue base will encourage greater adoption of transoral surgery as a treatment modality. It is a technique that can be helpful regardless of any future advances in robot or laser technology. Furthermore, this technique reduces the reliance on multiple complicated and expensive retraction systems. Finally, the improved exposure and visualization of the tongue base attainable by this new procedure may facilitate clear surgical margins and thus maximize the potential for cure, which is ultimately the objective of all head and neck surgeons.

Biography

Jeffson Chung is the Head and Neck Oncologic Surgeon with an appointment of Assistant Professor at West Virginia University, USA. He has research interests in head and neck cancer treatment outcomes, functional outcomes, technology in the ENT practice and telemedicine.

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