FP 33: Outcomes of Transoral CO2 Laser Surgery for Early Glottic Carcinoma: Experience of Two Private Tertiary Hospitals

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Abstract
Background: Early glottic squamous cell carcinoma (T1aN0, T1bN0, T2N0) is one of the most curable malignancies of the head and neck. Cure and voice preservation can thus be achieved using a single modality treatment. Transoral laser microsurgery allows for resection of only the involved tissue and structures using narrow margins to spare uninvolved structures, thereby improving functional outcomes.
Method: Medical records of patients were reviewed. All patients diagnosed with early glottic squamous cell carcinoma who underwent transoral CO2 laser microsurgery by a single surgeon in the two St. Luke's Medical Center hospitals from January 2000 to June 2018 were included. Age, sex, tumor staging, extent of resection, post-operative complications, radiotherapy done pre- or post-surgery, follow-up duration, and recurrence post-resection were tabulated.
Results: From January 2000 to June 2018, 43 patients were diagnosed with early glottic squamous cell carcinoma. Median age of included patients was 64 years old (42 to 92 years old). Of the 43 patients, 39 (91%) were males, while 4 (9%) were females. Majority of patients (81%) were staged as T1a, followed by T2 (12%), then T1b (7%). Most patients (70%) underwent type III resection (transmuscular cordectomy), followed by type V resection (extended cordectomy, 16%), then type IV resection (total or complete cordectomy, 14%). No peri-operative or post-operative complications were noted. Mean follow-up duration was 18.41. 6 patients (14%) developed recurrence within 3 years of resection, with 3 patients eventually undergoing total laryngectomy with neck dissection.
Conclusion: Transoral CO2 laser microsurgery is an effective technique for treating early glottic squamous cell carcinoma. Outcomes in this study were similar to previous studies.