



## Oncologic Efficacy of Ktp Laser in Early Glottic Cancer

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**Background:** Early glottic cancer (T1, T2) is typically managed by curative-intent radiotherapy or CO<sub>2</sub> laser resection. Disease control rates and voice outcomes are comparable. KTP laser treatment of early glottic cancer has shown promise with similar control rates in limited studies. This study presents the largest series outside its conception in Boston, USA.

**Methodology:** A retrospective chart review analyzed treatment outcome of consecutive patients with early glottic cancer (T1-2 NOMO). Pre-treatment videostroboscopy and voice handicap index were compared two years following treatment. Recurrence, progression to radiation or open surgery and mortality were recorded.

**Results:** For 61 patients (average age 61 years, 59 males) 34=T1a, 15=T1b, 9=T2a and 3=T2b. Three had prior irradiation and were excluded. Four patients had recurrence (6.9%): Two CIS (treated with repeat KTP laser surgery), two SCC (one recurrence progressed

to open partial resection and chemoradiotherapy with subsequent total laryngectomy for a non-functioning cancer-free larynx, one recurrence progressed to total laryngectomy within one year and then chemotherapy for extensive loco-regional recurrence three months later. Primary KTP laser treatment provided 100% disease-free survival at two years, larynx preservation of 96.5% and post-surgery radiation at 2%. Radiotherapy was preserved as a future option in 98% of patients (100% in T1, 91.6% of T2). The cure rate was 96.5% (Two year minimum follow-up).

**Conclusion:** This study provides further data supporting oncological efficacy of KTP laser treatment in early glottic cancer. Recurrence and salvage total laryngectomy rates are low with the former often amenable to repeat KTP laser treatment. There is minimal requirement for post-surgery radiation allowing its preservation as a future treatment in 98%.