

Real-World Oncologic and Functional Outcomes in Laryngeal Carcinoma: A Ten-Year Institutional Cohort Study

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OBJECTIVE

To evaluate long-term survival, recurrence patterns and functional outcomes of laryngeal carcinoma treated with curative intent, as real-world data from low- and middle-income countries are limited.

METHODS

Retrospective cohort of **328** patients with stage I–IVB laryngeal carcinoma treated with curative intent (2010–2020). Kaplan–Meier, log-rank, Cox; CTCAE v4.0.

TREATMENT

- **Stage I–II:** RT, typically 55 Gy in 20 fractions
- **Stage III–IV:** CRT (cisplatin 75 mg/m²) with 70 Gy in 33–35 fractions, or surgery + adjuvant RT (60–66 Gy)
- Induction chemotherapy in selected patients

TABLE 1. BASELINE (N = 328)

Characteristic	No (%)	Characteristic	No (%)
Male	287 (88)	Glottic	282 (86)
Stage I–II	272 (83)	cN0	298 (91)
Definitive RT	188 (57)	CRT	126 (38)

RESULTS

87%
5-yr OS

84%
5-yr RFS

67 mo
median follow-up

38
deaths (12%)

57
recurrences (17%)

FIG 1. OS BY STAGE (p < 0.001)

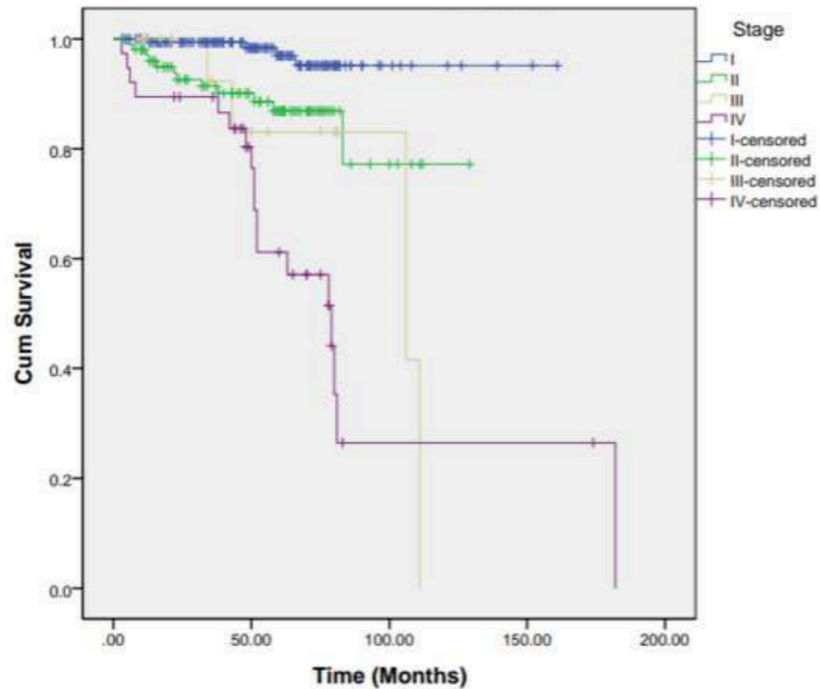


FIG 2. RFS BY STAGE (p = 0.018)

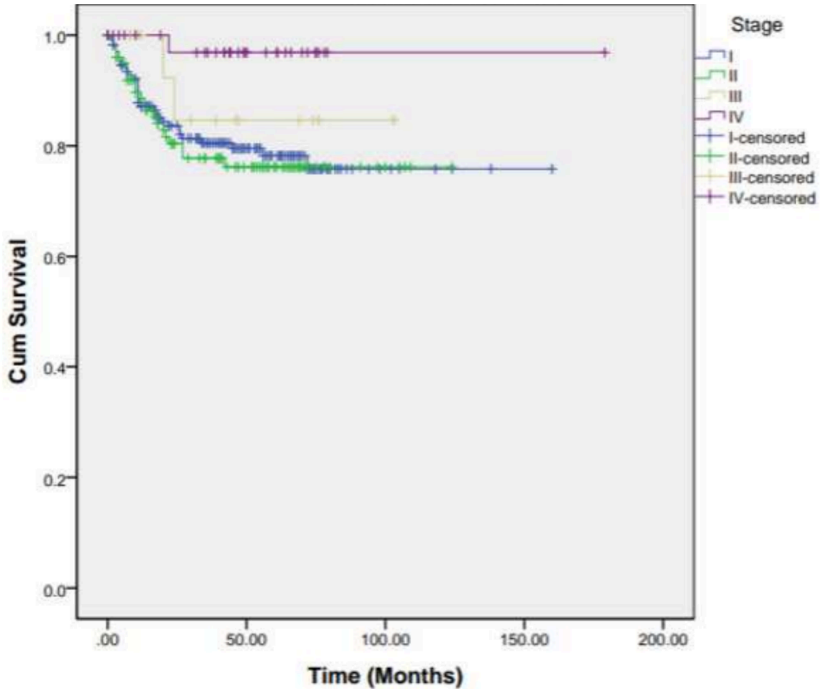


TABLE 2. OUTCOMES BY STAGE

Stage	n	Deaths	Recur.
I	169	4 (2%)	33 (20%)
II	103	12 (12%)	21 (20%)
III	18	4 (22%)	2 (11%)
IV	38	18 (47%)	1 (3%)

Stage I vs IV (OS): HR 0.19, p < 0.001. Low Stage IV recurrence reflects early deaths and censoring.

TABLE 3. FAILURE, TOXICITY & FUNCTION

Outcome	No (%)
Local-only recurrence*	28 (49)
Distant-only recurrence*	13 (23)
Grade ≥3 dysphagia	16 (5)
PEG dependence	46 (14)
Salvage surgery	29 (9)
Voice improvement†	230 (70)

*% of 57 recurrences (28% local + distant). †Qualitative, chart-derived.

CONCLUSION

Curative-intent treatment gave favorable survival with low severe toxicity and acceptable function, reflecting a largely early-stage, glottic, node-negative cohort. Stage was the strongest prognostic factor, supporting stage-adapted organ preservation.

