

# Overall Survival Analysis of Neoadjuvant Chemoradiotherapy and Esophagectomy for Esophageal Cancer

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## Introduction

Multidisciplinary care including neoadjuvant chemoradiotherapy (NAC) followed by esophagectomy, has been established as a standard of care for early stage (II – III), resectable esophageal cancer. Patients (pts) treated with NAC are more likely to have improved overall survival (OS), more likely to be downstaged and have negative margins at resection. The specific aim of the current report was to analyze the OS outcomes of trimodality therapy at a single, tertiary care academic medical center. Additional objectives were to quantify the downstaging secondary to NAC, study the impact of downstaging on OS, and whether histology has an effect on OS.

## Materials/Methods

## Results

Median age of the pts was 61.4 yrs of which 83% were men (n = 89). By histology, 84% had adenocarcinoma (n = 90) and 16% had squamous cell carcinoma (n = 17). Average follow up was 7.1 yrs (range 2 yrs – 17 yrs). Three-fifths had Stage III (60%), one-third Stage II (32%), and 8% had Stage I disease. Pathologic staging determined that of 107 pts, 57% (61) were downstaged, 8% (9) were upstaged, and 30% (32) remained at the same stage. One-fourth of the cohort had a CR. Median OS was 31.1 months (range 2 months – 17 yrs) for all pts. The OS for downstaged pts was 40 months, upstaged pts was 20.6 months, and 27 months for those who remained at the same stage (p = 0.08). OS by histological type was 29 months for adenocarcinoma and 53 months for squamous cell carcinoma (p = 0.06).

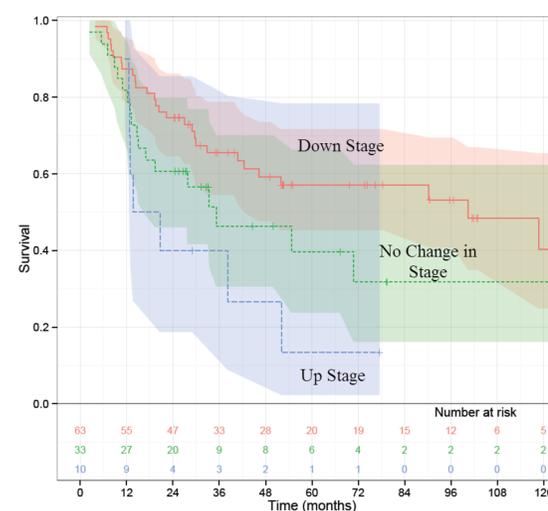
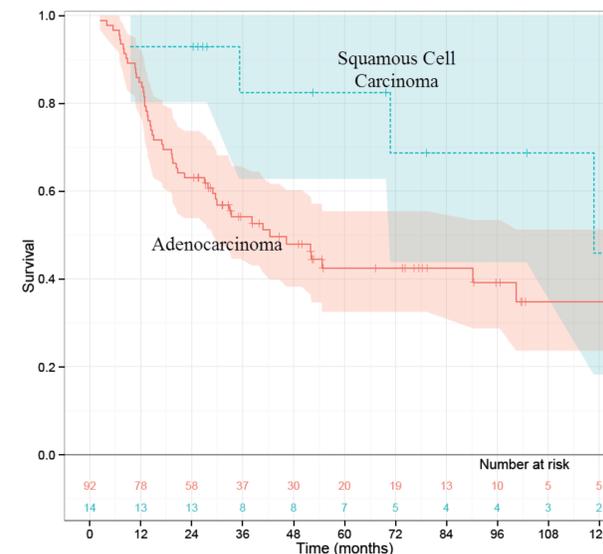
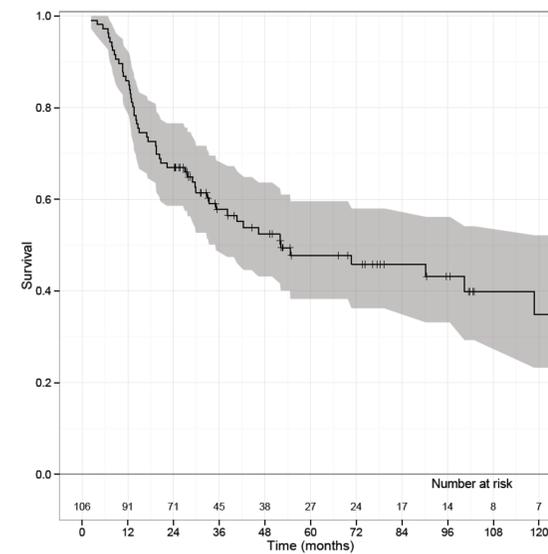


Table 1: Patient characteristic, histology and staging

n =	107	
Gender	Male	83% (n = 89)
	Female	17% (n = 18)
Followup (yrs)	Median	6.7
	Range	2.6 -- 17.5
Histology	Adenocarcinoma	84% (n = 90)
	Squamous Cell	16% (n = 17)
Stage	Pre-Treatment	
	Stage I	8%
	Stage II	32%
Post Chemoradiation	NED*	25%
	Stage I	5%
	Stage II	40%
Change in Stage	Stage III	30%
	Up	8%
	Unchanged	30%
	Down	57%

## Materials & Methods Cont'd

We performed a retrospective study of 107 pts that underwent NAC followed by esophagectomy for esophageal cancer from September 1996 to May 2011. All pts were initially staged by imaging (EUS, CT and/or PET imaging) prior to commencing treatment which included platinum-based chemotherapy plus 5-FU or capecitabine concurrently with radiation. After esophagectomy, pathological staging was compared to initial staging to determine the effect of neoadjuvant chemotherapy. Survival was determined by clinical follow up and the Social Security Death Index. OS curves were generated using the JMP software.

## Conclusion

NAC was effective in downstaging 57% of the patients and effectively increased the chance for a R0 resection. These pts, in turn, have improved OS compared to the median OS. Pts with SCCa showed a trend towards more favorable OS.

## Acknowledgments

## References