



NEW YORK REGIONAL SOCIETY OF PLASTIC SURGEONS

2018 RESIDENTS' NIGHT ABSTRACT

Abstract Submission: E1 (Group 1)

Title: *Functional Status to Predict Post-Operative Course in Palliative Head and Neck Reconstructive Surgery.*

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PURPOSE: Surgical resection and reconstruction can offer significant symptomatic relief to patients with incurable head and neck cancer. It remains unclear which patients receive the greatest palliation at the lowest physiological cost. The purpose of this study is to assess peri-operative complications and post-operative outcomes in patients grouped by functional status to better define which patients benefit most from palliative reconstructive surgery.

METHODS: A retrospective review of patients undergoing palliative reconstructive surgery at a single academic center from 2008-2014 was performed. Patients were grouped by functional status using the Eastern Cooperative Oncology Group (ECOG) score. The procedure was deemed palliative if the patient had metastatic disease or involvement of the carotid arteries, skull base, prevertebral space, or intracranial space at the time of surgery (Table 1). Relevant ECOG scores corresponded to mild (1=no strenuous activity), moderate (2=unable to work), and severe (3=bedbound >50% of time) impairment.

RESULTS: Thirty-four patients with ECOG scores ranging from 1-3 underwent palliative resection and microsurgical reconstruction with 25 free (67.6%) and 15 pedicle (32.4%) flaps. Patients consisted of 22 males (64.7%) and 12 females (35.3%) with an average age of 60.8 years (± 10.9). 11 patients (n=11, 32.4%) were previously untreated and 15 (n=15, 44.1%) had previously undergone surgical resection. Squamous cell carcinoma was the primary malignancy in 29 patients (85.3%). Overall survival was 10.9, 8.4, and 2.4 months for ECOG scores of 1, 2, and 3, respectively (Figure 1). Percentage of overall survival spent hospitalized was not significantly different for patients with ECOG scores of 1 and 2 at 5.4% and 7.6%, respectively, but significantly increased to 34.9% in patients with an ECOG score of 3 (Figure 2). The 6-month reoperation rate increased from 5.3% to 12.5% as ECOG score increased from 1 to 2, respectively. No patients in the ECOG score of 3 group underwent reoperation within 6 months of resection and reconstruction. Increased ECOG scores were additionally associated with increased frequency and severity of both systemic and reconstructive complications. Flap survival did not differ between functional groups. Peri-operative and post-operative results are summarized in Table 2.

CONCLUSIONS: Patients with ECOG scores of 1 and 2 had favorable post-operative courses. An ECOG score of 3 was associated with limited survival with a large percentage of that time spent hospitalized and being treated for complications. Using pre-operative functional status as a predictor of post-operative outcomes, we can better stratify which patients should be offered palliative reconstructive microsurgery.

Table 1

Palliative Classification	Patients
Metastatic Disease	32.4% (n=11)
Carotid Involvement	38.2% (n=13)
Skull Base Involvement	14.7% (n=5)
Intracranial Space Involvement	14.7% (n=5)
Prevertebral Space Involvement	11.8% (n=4)

Table 1. Disease classification for palliative surgery

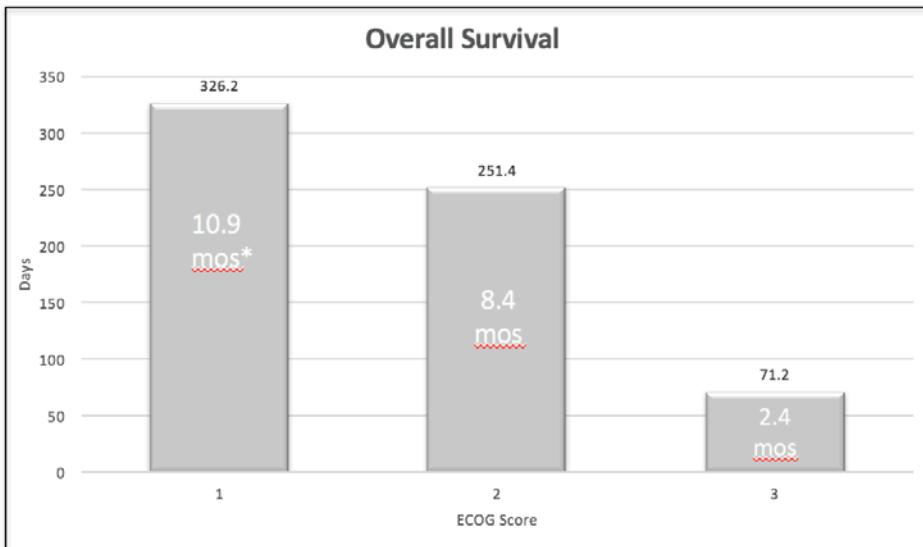


Figure 1. Overall Survival by ECOG score

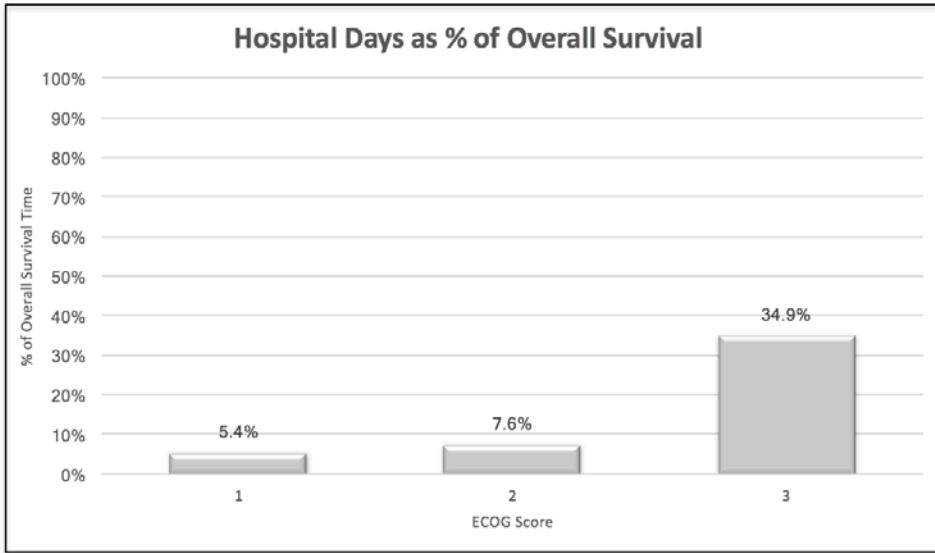


Figure 2. Post-operative hospital days as a percent of overall survival by ECOG score

ECOG 1 (n=19)	ECOG 2 (n=8)	ECOG 3 (n=7)
Median Age: 60 (45-73)	Median Age: 64 (40-71)	Median Age: 68 (44-84)
Male: 52.6%, Female: 47.4%	Male: 75%, Female: 25%	Male: 85.7%, Female: 14.3%
10.9 month survival	8.4 month survival	2.4 month survival
5.4% of survival hospitalized	7.6% of survival hospitalized	34.9% of survival hospitalized
15.8% systemic complications	37.5% systemic complications	71.4% systemic complications
31.6% reconstructive complications	50% reconstructive complications	42.9% reconstructive complications
5.3% flap reoperation (6 months)	12.5% flap reoperation (6 months)	0% flap reoperation (6 months)
89.5% flap survival	75% flap survival	100% flap survival
76.6% of survival recurrent free	92.5% of survival recurrent free	100% of survival recurrent free

Table 2. Summary of peri-operative complications and post-operative outcomes grouped by ECOG Score