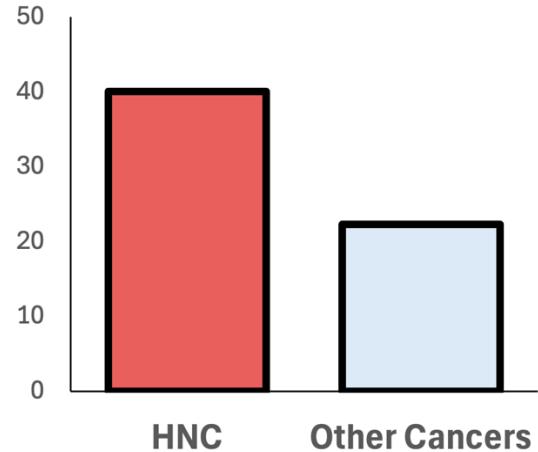


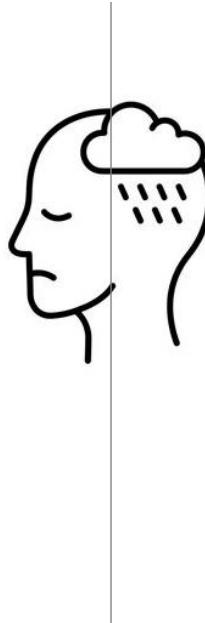
Association of Preoperative Depression and Clinical Outcomes After Head and Neck Free Flap Reconstruction

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Depression in Head and Neck Cancer



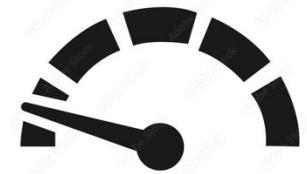
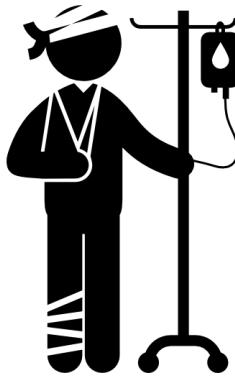
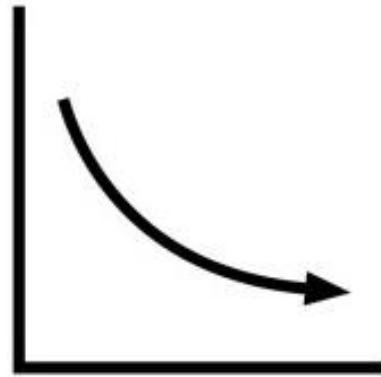
Depression is prevalent in 40.1% of head and neck cancer (HNC) patients.¹



Up to 22% of HNC patients had unrecognized depression/anxiety at the time of surgery.²

1. Martinez MC, Finegersh A, Baik FM, et al. Comorbid Depression in Patients With Head and Neck Cancer Compared With Other Cancers. *JAMA Otolaryngol Head Neck Surg*. 2024;150(12):1097.
2. Pichardo PFA, Desiato VM, Hellums RN, Altman KW, Purdy NC, Haugen T. Depression and anxiety in patients with head and neck cancer undergoing free flap reconstruction. *Am J Otolaryngol*. 2024;45(1):104044.

Depression in Head and Neck Cancer



Objective

To investigate the association between preoperative depression and clinical outcomes after free flap surgery for head and neck cancer.

Methods

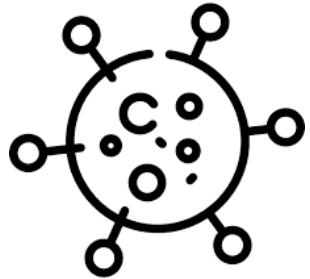
- **Single-institution retrospective cohort study**
- **Inclusion criteria:** Patients with head and neck cancer who underwent a free flap procedure between January 2019-December 2023
 - Identified via CPT codes for free flap surgery and neck dissection
 - Patients who underwent free flaps for oncologic tumor resection or other related indications (tissue radionecrosis, afunctional larynx, etc. were included)
- **Data Collection**
 - Patient clinical and demographic data
 - Psychiatric history and medication use
 - Postoperative outcomes (adjuvant treatment, length of stay (LOS), discharge disposition, 30-day readmission, date of death or last known follow up)

Methods

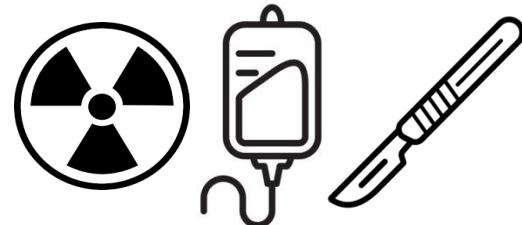
- **Primary Outcome:** Overall survival (OS)
- **Secondary Outcomes:** Length of stay (LOS), discharge disposition (home vs. rehabilitation or skilled nursing facility), 30-day readmission, postoperative radiotherapy (PORT) delay
- **Statistical Analysis:**
 - Three cohorts: primary resection, salvage surgery, and other
 - Survival outcomes assessed using Kaplan-Meier analysis and multivariate Cox proportional hazards models controlling for age, sex, and CCI
 - Secondary outcomes assessed using multivariate linear and logistic regression models

Results

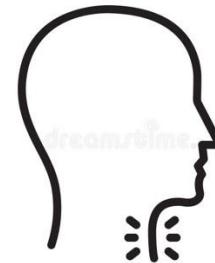
645 patients with
HNC who underwent
free flap procedures



389 (60%)
Primary Resection



208 (32%)
Salvage Surgery



48 (8%)
Other Indications

Results

158 patients (25%) with preoperative depression

160 patients (25%) with preoperative anxiety

*identified using ICD-9 and ICD-10 codes

142 patients (22%) on preoperative antidepressants

90 patients on SSRIs

30 patients on SNRIs

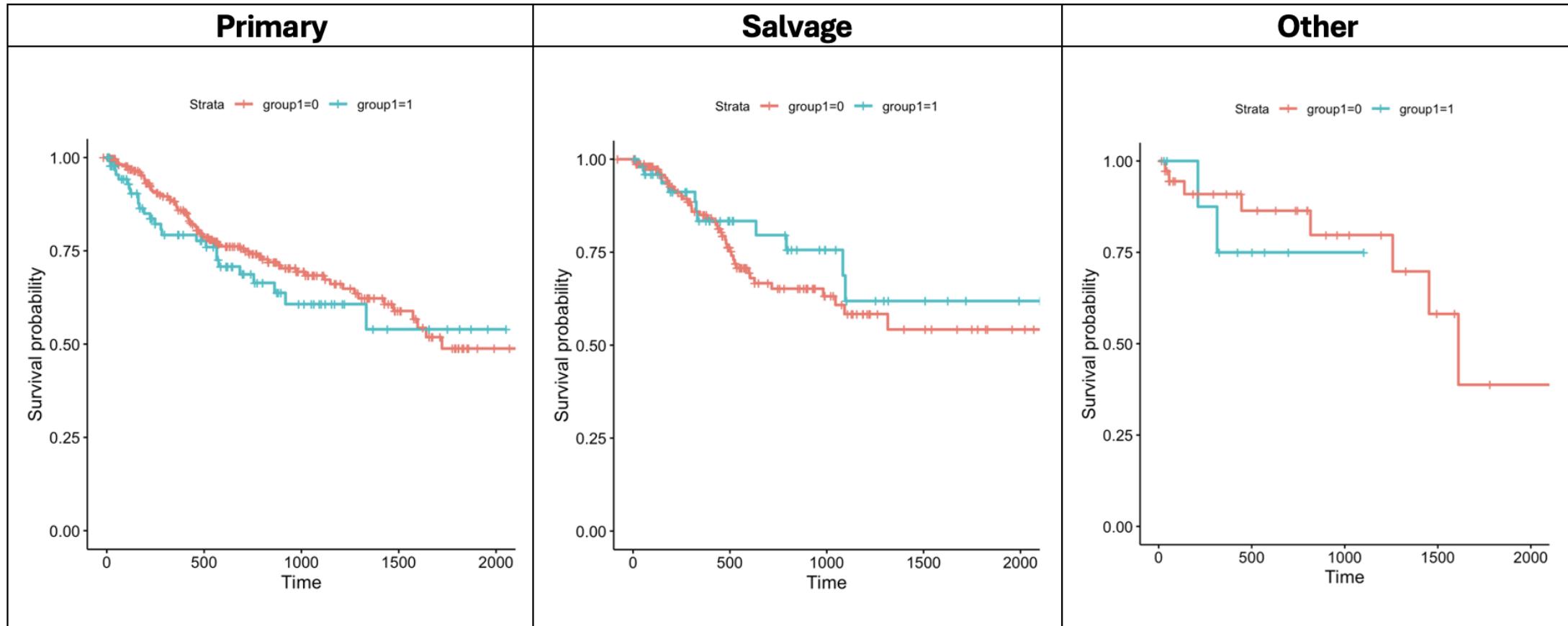
13 patients on tricyclic antidepressants

28 patients on atypical antidepressants

Inpatient psychiatry consulted for **32 patients**

129 patients prescribed an antidepressant inpatient,
including 12 previously not treated for depression.

Results – Survival Analysis



Results – Clinical Outcomes

	Length of Stay (coef [95% CI])	Discharge Disposition (OR [95% CI])	30-Day Readmissions OR [95% CI]	PORT Delay OR [95% CI]
Depression				
Preop Depression				
N	1 [ref]	1 [ref]	1 [ref]	1 [ref]
Y	0.93 (-0.14-2.00)	1.66 (0.98-2.78)	0.82 (0.49-1.34)	0.65 (0.31-1.40)
Depression +/- any Antidepressant				
N	1 [ref]	1 [ref]	1 [ref]	1 [ref]
Y	0.46 (-0.54-1.47)	1.54 (0.93-2.53)	0.63 (0.39-1.01)	0.48 (0.23-0.99)**
Any preop antidepressant				
N	1 [ref]	1 [ref]	1 [ref]	1 [ref]
Y	0.69 (-0.41-1.79)	1.82 (1.07-3.06)**	0.76 (0.45-1.26)	0.49 (0.23-1.10)
Covariates (using Preop Depression Diagnosis)				
Age	0.00 (-0.04-0.04)	1.08 (1.05-1.10)**	1.01 (0.99-1.03)	0.98 (0.94-1.03)
Sex				
Male	1 [ref]	1 [ref]	1 [ref]	1 [ref]
Female	0.29 (-0.70-1.29)	1.02 (0.61-1.67)	1.18 (0.76-1.82)	2.41 (1.04-6.35)
CCI	0.12 (-0.08-0.33)	1.03 (0.93-1.13)	1.01 (0.92-1.10)	1.12 (0.93-1.40)

Are we adequately studying depression in HNC patients?

8.9%-25.4% in studies investigating depression in HNC patients, compared to:

40.1% estimated rate of depression in HNC patients

Depression is variably defined:

Screening Measures

- PHQ-9
- HDRS
- BDI
- CES-D
- HAS

Retrospective Studies

- ICD-9 and ICD-10 codes
- CPT codes

Conclusions

1. Preoperative depression was present in 25% of our patients.
2. Our study did not find significant associations between preoperative depression and clinical outcomes in HNC.
3. Depression is likely not being adequately captured; further study is needed to better characterize depression in the HNC patient population.

Thank you!

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