

Quality of Life Outcomes for Surgically-Treated Parotid Cancer Patients

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INTRODUCTION

Surgical treatment of parotid gland cancer (PGC) can cause a variety of complications impacting quality of life (QOL) and patient-reported outcomes (PROs).^{1,2}

The aims of this study were to describe important issues impacting everyday activities and to determine predictors of QOL and PROs in surgically-treated PGC patients.

METHODOLOGY

This is a retrospective study of 68 PGC patients seen in a multidisciplinary survivorship clinic between 2017 and 2023. Six patients were excluded for lack of surgical treatment.

- Area deprivation index (ADI), a measurement of neighborhood socioeconomic disadvantage, was used to represent socioeconomic status.
- QOL was assessed using the University of Washington Quality of Life (UW-QOL).
- PROs were assessed using the Eating Assessment Tool-10 (EAT-10), the Patient Health Questionnaire-8 (PHQ-8) for depression, the Generalized Anxiety Disorder-7 (GAD-7), the Neck Disability Index (NDI), and Insomnia.

Statistical analysis completed using R. Univariate and multivariate analysis were done using linear regression. An $\alpha = 0.05$ was used to determine statistical significance.

Figure 1: Study Flow Chart

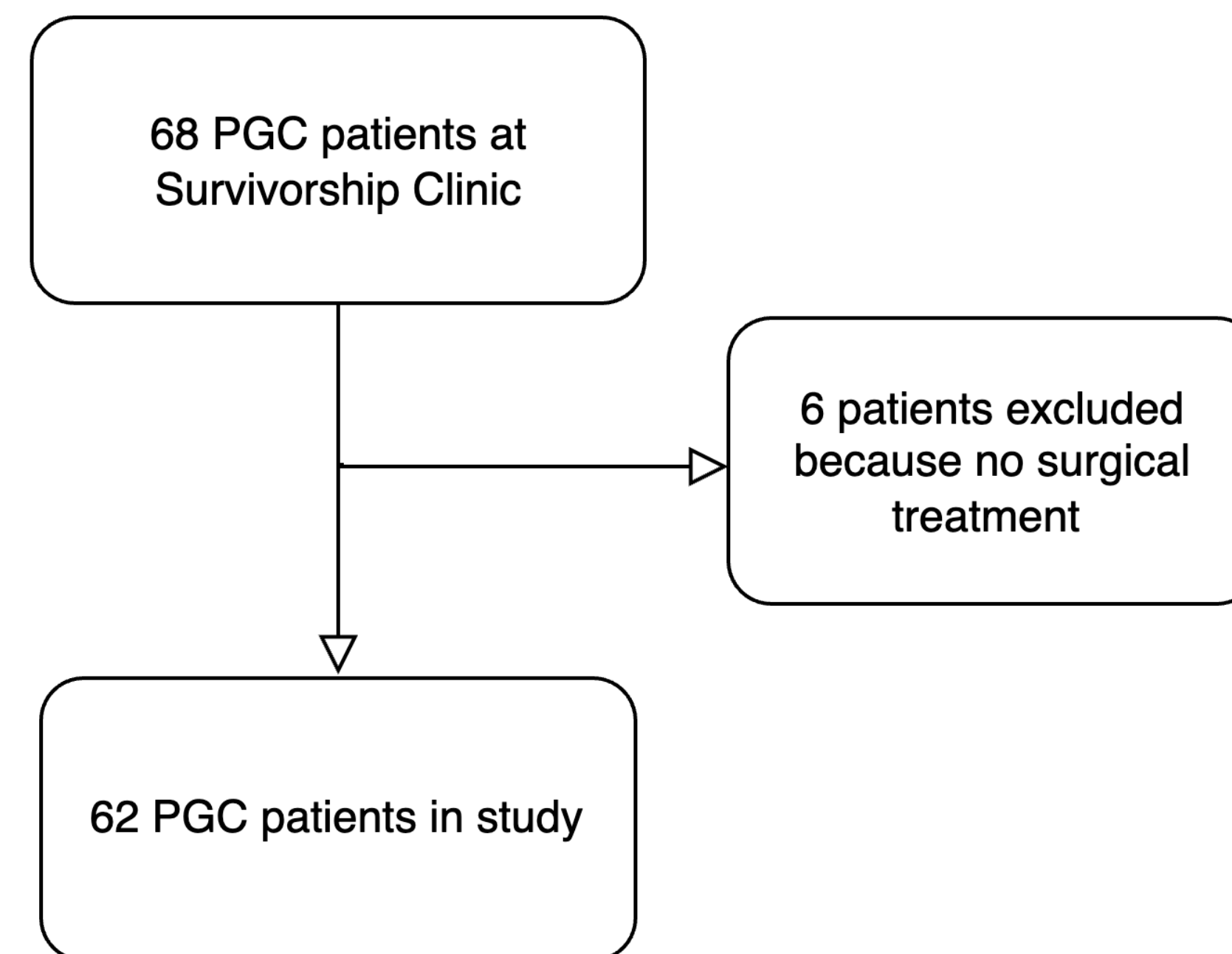


Table 2: Quality of Life Outcomes and PROs

QOL and PROs	Median [IQR]
Physical QOL	67.50 [2.50, 81.04]
Social QOL	60.84 [15.75, 78.33]
PHQ-8	2.00 [1.00, 5.00]
EAT-10	1.00 [0.00, 4.75]
GAD-7	1.00 [0.00, 3.00]
Insomnia	4.50 [2.00, 9.00]

Table 1: Demographics and Clinical Characteristics

	Median (IQR)
Age at visit	72.37 (53.74, 77.93)
Time since treatment (months)	22.05 (2.22, 112.26)
	No. (%)
Sex	Female 26 (41.9) Male 36 (58.1)
Marital Status	Married 42 (67.7) Not Married 19 (30.6)
Race	White 60 (96.8) Black 1 (1.6) Other 1 (1.6)
Treatment	Surgery alone 11 (17.7) Surgery and CRT 12 (19.4) Surgery and Radiation 39 (62.9)
AJCC Stage	I/II 13 (21.0) III/IV 26 (41.9)
Facial nerve resection	Yes 37 (59.7) No 24 (38.7)
Perineural Invasion (PNI)	Yes 30 (48.4) No 24 (38.7)
Neck Dissection	Yes 49 (79.0) No 12 (19.4)

Table 3: Frequency of most important issues for PGC patients

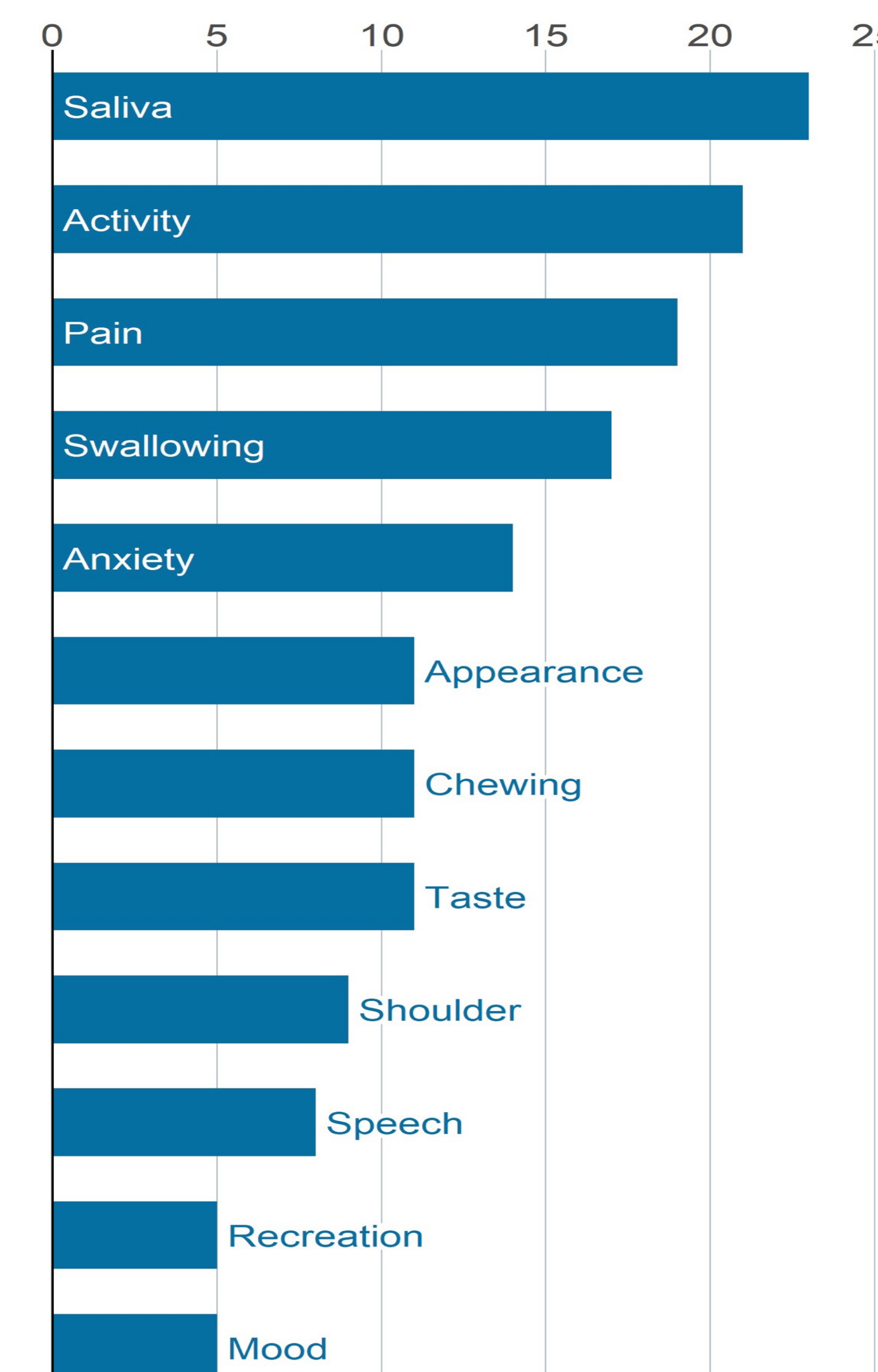


Table 4: QOL and PROs Multivariate Analyses

	Beta	95% CI	p-value		Beta	95% CI	p-value
Physical QOL				EAT-10			
Treatment			0.019	ADI	-0.14		0.002
Surgery + CRT	-34.13	-63.19, -5.06		Time since treatment	0.015		0.010
Surgery + RT	-33.79	-58.08, -9.49		Treatment			0.019
Neck Dissection	-11.36	-33.46, 10.73	0.31	Surgery + CRT	8.49		
Social QOL				Surgery + RT 1.05			
PHQ-8				Insomnia			
Treatment			0.019	Age at visit	-0.06	-0.16, 0.04	0.25
Surgery + CRT	-30.70	-55.94, -5.38		PNI	-2.18	-5.14, 0.78	0.15
Surgery + RT	-28.14	-48.82, -7.46		Neck Dissection	-3.99	-7.39, -0.59	0.02
Time since treatment	-0.014	-0.03, -0.0002	0.047				

RESULTS

- The most frequently selected important post-treatment issues were **salivation (37.1%)**, **the ability to maintain daily activities (33.9%)**, **persistent pain (30.6%)**.
- Thirty-three survivors (53.2%) reported 3 or more important issues that impact their daily lives.
- PGC survivors treated **with surgery and CRT or with surgery and radiation** were associated with lower physical and social QOL.
- PGC survivors treated with **surgery and CRT** were associated with increased swallowing difficulty.

CONCLUSION

- Difficulty with salivation, inability to maintain daily activities, and persistent pain have the greatest impact on PGC patient QOL.
- Multimodal treatment is associated with worse QOL and PROs.
- Further analysis will help elucidate the important issues PGC survivors face post-treatment and improve patient survivorship through targeted interventions.

