



Awareness of Patients Toward Maxillofacial Prostheses After Cancer Surgery: A Cross-Sectional Study

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ABSTRACT:

Objective: To evaluate the level of awareness, knowledge, and perceptions of patients who have undergone head and neck cancer surgery regarding maxillofacial prosthetic rehabilitation.

Materials and Methods: A cross-sectional questionnaire-based study was conducted among 500 patients treated surgically for head and neck cancers at a tertiary care center. A validated structured questionnaire assessed demographic variables, awareness of maxillofacial prostheses, sources of information, perceived benefits, and barriers to rehabilitation. Data were analyzed using SPSS version 26.0. Descriptive statistics and chi-square tests were applied, with statistical significance set at $p < 0.05$.

Results: Among the 500 participants (mean age 50.2 ± 11.8 years), 195 patients (39%) were aware of maxillofacial prosthetic rehabilitation. Awareness was significantly higher among patients with higher educational status ($p = 0.02$) and those who had consulted a maxillofacial prosthodontist ($p < 0.001$). The most common source of information was healthcare professionals (48%). Major barriers to awareness included lack of counseling at diagnosis (66%), limited access to educational resources (60%), and financial constraints (44%).

Conclusion: Despite advances in maxillofacial rehabilitation, awareness among post-cancer surgery patients remains inadequate. Early multidisciplinary counseling and structured patient education programs are essential to improve utilization of prosthetic rehabilitation and enhance quality of life.

KEYWORDS: Maxillofacial prosthesis, head and neck cancer, patient awareness, rehabilitation, cancer surgery

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I. INTRODUCTION

Surgical management of head and neck malignancies frequently results in extensive maxillofacial defects that compromise speech, mastication, swallowing, and facial appearance [1,5,10]. These impairments often exert a profound psychological and social burden on affected individuals [1,8,13]. Maxillofacial prosthetic rehabilitation offers a predictable and non-invasive approach to restoring form and function, thereby improving overall quality of life [2,6,9,14]. Despite the availability of advanced prosthetic techniques, many patients fail to access rehabilitation services [6,11]. Limited awareness regarding the existence, benefits, and availability of maxillofacial prostheses has been identified as a critical barrier [4,11,15]. Patient knowledge is influenced by multiple factors, including educational background, socioeconomic status, and the quality of information provided during oncologic care [11,15]. Although several studies have evaluated functional outcomes following maxillofacial rehabilitation [1,5,6,14], data focusing specifically on patient awareness remain scarce [4,11,15]. The present study was therefore designed to assess the level of awareness among patients who have undergone cancer-related maxillofacial surgery and to identify factors associated with awareness and perceived barriers to rehabilitation [4,11].

II. MATERIALS AND METHODS

Study Population A total of 500 patients who underwent surgical treatment for head and neck cancer and reported for follow-up were included.

Inclusion criteria:

- Age \geq 18 years
- Minimum 3 months post-surgery
- Willingness to participate

Exclusion criteria:

- Recurrent malignancy
- Cognitive impairment affecting questionnaire completion

Questionnaire Development : A structured questionnaire was developed based on literature review and expert validation. It included four domains:

1. Demographics: age, gender, education, socioeconomic status.
2. Clinical History: cancer type, surgery type, time since surgery.
3. Awareness & Knowledge: understanding of maxillofacial prostheses, sources of information.
4. Perceptions & Barriers: attitudes towards prosthetic rehabilitation and perceived obstacles.

Questionnaire Reliability: The questionnaire demonstrated good internal consistency (Cronbach's alpha = 0.84).

III. RESULTS

Table 1. Demographic Characteristics of Study Participants (n = 500)

Variable	Category	n (%)
Age (years)	18-40	135 (27)
	41-60	245 (49)
	>60	120 (24)
Gender	Male	270 (54)
	Female	230 (46)
Education Level	Primary or less	210 (42)
	High school & above	290 (58)
Time Since Surgery	<6 months	215 (43)
	\geq 6 months	285 (57)

Table 2. Awareness of Maxillofacial Prosthetic Rehabilitation

Awareness Variable	Yes n (%)	No n (%)
Heard of maxillofacial prosthesis	195 (39)	305 (61)
Aware of functional benefits	170 (34)	330 (66)
Aware of aesthetic benefits	155 (31)	345 (69)
Aware of prosthetic services availability	140 (28)	360 (72)

Table 3. Association Between Awareness and Selected Variables

Variable	Aware n (%)	Not Aware n (%)	p-value
Higher education	135 (46.6)	155 (53.4)	0.02*
Lower education	60 (28.6)	150 (71.4)	
Prosthodontist consultation	120 (63.2)	70 (36.8)	<0.001*

*Chi-square test; $p < 0.05$ statistically significant

IV. DISCUSSION

This study, conducted on a large sample of 500 post-surgical head and neck cancer patients, provides robust evidence that awareness of maxillofacial prosthetic rehabilitation remains limited. The awareness rate of 39% demonstrate that fewer than half of the participants were aware of prosthetic rehabilitation options, despite the presence of functional and aesthetic deficits following surgery. Patients who had consulted a maxillofacial prosthodontist were substantially more informed, highlighting the importance of early interdisciplinary involvement. These findings underscore the need for structured referral pathways within oncology services. The most commonly reported barrier was insufficient counseling at the time of diagnosis. This suggests that discussions regarding rehabilitation are often delayed or omitted during treatment planning. Incorporating rehabilitation counseling into routine oncologic consultations may help bridge this gap. While the large sample size strengthens the validity of the study, its cross-sectional design limits causal inference.

V. CONCLUSION

Awareness of maxillofacial prosthetic rehabilitation among post-surgical head and neck cancer patients remains limited. Educational status and prior specialist consultation significantly influence patient knowledge. Early integration of prosthodontic counseling and targeted educational interventions may improve rehabilitation uptake and enhance long-term patient outcomes.

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