ORIGINAL ARTICLE

Beyond Conventional Care: The use of Alternative Medicine by Head and Neck Cancer Patients in Pakistan – A Retrospective study

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Abstract

Objective: To investigate the prevalence, utilisation and association of diagnostic delay, tumour stage and recurrence with alternative medicine among head and neck cancer patients having undergone surgical resection.

Method: The retrospective, cross-sectional study was conducted from March to June 2024 at the Department of Otolaryngology and Head and Neck Surgery, Aga Khan University Hospital, Karachi, and comprised adult patients who underwent surgical resection of primary head and neck cancers from January 1, 2017, to January 31, 2019. Data was collected from the patient electronic medical records related to tumour characteristics along with details regarding treatment and exposure to alternative therapy. Data was analysed using SPSS 23.

Results: Of the 125 patients with mean age 46.71±12.6 years, 98(78.4%) were male and 27(21.6%) were female. Overall, 33(26.4%) patients reported AM exposure. Most patients presented with advanced-stage disease 98(83.4%), and 28(28.6%) of them had sought alternative treatments prior to conventional medical care. Majority of patients had an undergraduate education 92(86.6%), were minimum wage earners 114(91.2%), and an early recurrence was noted in 59(47%) cases. There was no significant difference with respect to cancer stage, levels of education and income, and recurrence rate between those who sought alternative medicine and thoe who did not (p>0.05).

Conclusion: A significant number of oral cancer patients had utilised alternative medicine. However, the practice was not correlated with disease severity, socioeconomic status or disease recurrence.

Key Words: Complementary therapy, Traditional healers, Delayed diagnosis, Recurrence, Herbal medicine.

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Introduction

Oral cancer (OC) is a major global health problem, particularly in developing countries like Pakistan. Yearly, there are 3.5 million new cases of lip and oral cavity cancers, and almost 1.7 million associated deaths.[1]

Despite improvements in diagnostic and therapeutic modalities, the prognosis for patients with advanced-stage OC remains poor. Early detection and initiation of appropriate treatment are crucial factors influencing patient outcomes. However, various sociocultural factors, including beliefs, practices or/and anxiety related to potential disfigurement, can significantly impact patient behaviour. [2,3]

There is an increasing prevalence of not so blatantly "harmful" complementary and alternative medicine (CAM) practices. Cochrane defines CAM as any healing practice other than those belonging to the politically dominant health system at any given time. [4]

CAM encompasses diverse therapies, including herbal remedies, homoeopathy, acupuncture and spiritual healing, that are not considered part of standard medical care. While some alternative medicine (AM) practices may be harmless and convenient, others can have grave adverse effects, such as treatment delay leading to tumour progression. In Pakistan, faith-healers dominate the AM market, with many individuals, especially in rural areas, relying on them.[5]

To our knowledge, the effect of AM on OC in Pakistan has remains unexplored in literature. The current study was planned to fill the gap by investigating the prevalence, utilisation and/or association of diagnostic delay, tumour stage and recurrence with CAM among OC patients having undergone surgical resection.

Materials and Methods

The retrospective, cross-sectional study was conducted from March to June 2024 at the Department of Otolaryngology and Head and Neck Surgery, Aga Khan University Hospital (AKUH), Karachi, and comprised adult patients who underwent surgical resection of primary head and neck cancer (HNC) from January 1, 2017, to January 31, 2019. Data was retrieved from the patient electronic medical records after exemption from the institutional ethics review committee. Data of patients with metastatic disease to the head and neck region was excluded.

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Data included demographic information, tumour characteristics at diagnosis, recurrence and, where applicable, the cause of death. Also included was history of exposure to AM.

All the cases included in the study had been discussed in multidisciplinary team (MDT) meetings and subsequently underwent surgical excision of the tumour along with neck dissection with or without reconstruction.

Data was analysed using SPSS 23. Chi-square test was used where applicable. P<0.05 was considered significant.

Results

Of the 125 patients with mean age 46.71±12.6 years (range: 20-76 years), 98(78.4%) were male and 27(21.6%) were female. All the patients presented with complaints of non-healing ulcers in the oral cavity, and the mean duration of the symptoms was 4.12±2.59 months (range: 1-18 months).

Buccal mucosa was the most involved sub-site 80(64%), followed by the oral tongue 26(20.8%). Most of the patients had tumour stage 4 (T4) 53(42.4%), and 62(49.6%) presented with cervical nodal disease.

Of the total patients, 33(26.4%) had sought AM options before taking medical advice. Education ad income status of the patients was also noted (Table 1).

Of the 98(92.4%) patients who presented with advanced stage, 28(28.6%) had sought alternative medicine. Of the 59(47.2%) patients who suffered early recurrence, 33(55.9%) had AM exposure. There was no significant difference with respect to cancer stage, levels of education and income, and recurrence rate between those with and without AM exposure (p>0.05) (Table 2).

Table-1: Demographic and patient characteristics.

Patient Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	98	78.4%
Female	27	21.6%
Site of Tumour		
Buccal mucosa	80	64%
Oral tongue	26	20.8%
Gingiva	9	7.2%
Retro molar trigone	3	2.4%
Floor of mouth	2	1.6%
Hard palate	4	3.2%
Lips	1	0.8%
T Stage		
1	12	9.6%
2	37	29.6%
3	23	18.4%
4	53	42.4%
N Stage		
N0	63	50.4%
N1	22	17.6%
N2	37	29.6%
N3	3	2.4%
Overall stage		
I	10	8%
II	17	13.6%
III	25	20%
IV	73	58.4%
Treatment type		
Medical	92	73.6%
Herbal	7	5.6%
Religious	22	17.6%
Homeopathic	4	3.2%
Level of Education		
Below 10th Grade	23	18.4%
10th Grade	24	19.2%
High School (12th Grade)	18	14.4%
Graduate	33	26.4%
Illiterate	27	21.6%
Level of Income (per month)		
Below PKR 10,000	25	20%
PKR 10,000 to 20,000	30	24%
PKR 20,000 to 30,000	16	12.8%
PKR 30,000 to 50,000	19	15.2%
Above PKR 50,000	11	8.8%
Unemployed/Not applicable	24	19.2%

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T: Tumour, N: Node, PKR: Pakistani rupee.

Table-2: Correlations with alternative treatment.

Characteristic	Yes	No	P-Value
Overall stage			
Early stage	5	22	0.28
Advanced stage	28	70	
Level of Education			
Below graduate level	24	68	0.89
Graduate level & above	9	24	
Level of Income			
Below PKR 50,000	31	83	0.72
PKR 50,000 and above	2	9	
Recurrence			
Yes	16	43	0.86
No	17	49	

PKR: Pakistani rupee

Discussion

A significant proportion 98(83.4%) of patients in the current study had presented with advanced-stage disease, which is more aggressive and widespread than early-stage cancers, and often exhibit a poorer prognosis.[6] This information is crucial for oncologists and surgeons in determining the appropriate treatment strategies. While early-stage cancers can often be managed with surgery alone, advanced-stage cancers (stages III and IV) frequently require a multi-modal approach, combining surgery, radiation therapy and chemotherapy.[6,7]

Generally, financial constraints, personal distress and anxiety related to the disease and its treatment play a pivotal role in both primary and secondary delays in seeking medical care for cancers. HNC has a natural pattern of secondary delay. In one study, HNC had a mean delay ranging from 98 to 142 days.[8] The delay in the current study was 123.6 days, from the primary complaint to the time where actual management commenced. The finding may be attributed to patient-related factors, such as stigma associated with cancer, and limited access to specialised care, particularly in rural areas.[9]

While previous research has highlighted the detrimental impact of treatment delays on HNC outcomes [3,8,10,11], the specific role of AM in this context remains understudied, particularly in developing countries.

A proportion of the current HNC patient cohort used various AN types, but, unlike findings in some Western studies[12,13], the current study did not find a significant association between AM use and delayed diagnosis or disease stage. Moreover, the lack of association between AM and disease stage in the study suggests the potential influence of other factors on AM use, such as cultural beliefs, personal experiences and patient-doctor communication.[14,15]

the current study has limitations as its retrospective design could not definitively establish causality between CAM use and treatment outcomes. Prospective studies with qualitative analysis of a large sample are recommended to inform evidence-based practice.

Conclusion

While a significant proportion of patients had used alternative therapies, these practices were not found to be associated with disease stage, socioeconomic factors and recurrence rates.

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Conflict of Interest: None.

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