

LETTER TO THE EDITOR

The impact of COVID-19 on the presentation, stage and management of head and neck cancer patients: A real-time assessment

Dear Editor,

During the COVID-19 pandemic, it was postulated that there might be a delay in cancer patients' presentation, stage migration and changes in management leading to excess cancer mortality.¹ However, there is a paucity of real-time objective data to support this, particularly in HNC. In our HNC multidisciplinary team (MDT), approximately 300 new patients present annually. The purpose of this observational study was to assess the impact of COVID-19 on the presentation, stage and management pattern on newly presented HNC patients during the pandemic era.

The data on all newly diagnosed HNC patients at our centre during April–December 2020 (COVID-19 cohort) were collected, and it was compared against the baseline pre-COVID-19 cohort (all new HNC patients diagnosed between April and December 2019). The comparative variables included patients' demographics, TNM/overall stage, primary site of disease, treatment intention (radical versus palliative) and detail of treatment modality. Chi-squared and Fisher's exact test was used for categorical variables, and Student's *t*-test was used for continuous variables.

There was 33% decrease in new confirmed HNC cases during COVID-19 (150 vs. 223 patients). There was significant reduction in T1 stage (25.0% vs. 36.3%; *p* 0.003) and significant increase in T4 stage at presentation during the COVID-19 period (36.5% vs. 25.0%; *p* 0.022). This T-stage up-migration led to reduction in overall stage I (14.0% vs. 25.1%; *p* 0.009) and increase in overall stage IVb (13.3% vs. 5.8%; *p* 0.012). Reviewing management intent, there appeared to be almost 7% increase in palliative intent between cohorts, although this difference was not statistically significant;

however, there was a significant reduction in radical surgery as the only treatment modality (20.0% vs. 30.9%; *p* 0.023). These results are summarised in Table 1. Our MDT took a pragmatic approach to surgical treatment throughout the pandemic. Theatre capacity was significantly reduced, but we were able to maintain therapeutic and diagnostic capacity for cancer patients where required. Treatment with curative intent was still offered to all appropriate patients. For a brief period in the first wave of the pandemic (March/April 2020), transoral robotic surgery was suspended for patients who had radiotherapy as an alternative, offering an equal chance of cure. Subsequent to this initial pause, surgical treatment has continued to be offered as per pre-pandemic decision-making. Throughout the pandemic, cases requiring surgery with reconstruction (e.g., laryngectomy, laryngopharyngectomy and oral cavity resection) continued as per pre-pandemic practice.

The COVID-19 pandemic, associated national lockdown with a reduction in diagnostic services and disruption in care delivery, is leading to unintended consequences in long-term morbidity.² There have been reports of a decrease in referrals with suspected HNC,³ but there is lack of published numerical data on any actual reduction in confirmed cases and if this has impacted on the patterns of care.

To the best of authors' knowledge, this is first such report confirming the relative change in T-stage and overall upstage migration in patients with HNC. Our study also showed that there was a trend towards an increased use of palliative treatment and significant reduction in use of radical surgery as sole treatment modality, suggesting that the pandemic is likely to impact long-term survival of HNC patients.

TABLE 1 A comparative table of patients' characteristics with significance in differences

Characteristic	2019 (n = 223)	2020 (n = 150)	Significance
Mean age (SD)	67.2 (11.4)	66.0 (11.1)	0.313
Gender (% of cohort)			0.770
Male	165 (74%)	113 (75.3%)	
Female	58 (26%)	37 (24.7%)	
Primary malignancy (% of cohort)			
Oropharynx	87 (39.0%)	44 (29.3%)	0.055
Oral cavity	57 (25.6%)	35 (23.3%)	0.625
Larynx	47 (21.1%)	29 (19.3%)	0.697
Hypopharynx	15 (6.7%)	25 (16.7%)	0.003
Nasopharynx	3 (1.3%)	2 (1.3%)	1.000
Others	14 (5.2%)	14 (9.3%)	0.210
TNM staging, AJCC seventh edition (% of cohort)			
T0	4 (1.8%)	5 (3.4%)	0.493
T1	81 (36.3%)	37 (25.0%)	0.022
T2	57 (25.6%)	27 (18.2%)	0.099
T3	32 (14.3%)	25 (16.9%)	0.506
T4	49 (22.0%)	54 (36.5%)	0.002
N0	100 (44.8%)	58 (38.9%)	0.258
N1	12 (5.4%)	10 (6.7%)	0.594
N2	105 (47.1%)	74 (49.7%)	0.626
N3	6 (2.7%)	7 (4.7%)	0.302
M			0.296
0	217 (97.3%)	141 (95.3%)	
1	6 (2.7%)	7 (4.7%)	
Overall staging, AJCC seventh edition (% of cohort)			
I	26 (25.1%)	21 (14.0%)	0.009
II	18 (8.1%)	9 (6.0%)	0.449
III	21 (9.4%)	18 (12.0%)	0.424
IV	128 (57.4%)	101 (67.3%)	0.053
IVa	109 (48.9%)	76 (50.7%)	0.735
IVb	13 (5.8%)	20 (13.3%)	0.012
IVc	6 (2.7%)	5 (3.3%)	0.761
Treatment intent			
Radical	190 (85.2%)	118 (78.7%)	
Palliative	33 (14.8%)	32 (21.3%)	
Treatment modality			
Radical surgery only	69 (30.9%)	30 (20.0%)	0.023
Surgery + adjuvant (chemo)radiotherapy	48 (23.5%)	40 (26.7%)	0.752
Radical (chemo)radiotherapy	67 (30.0%)	47 (31.3%)	0.876
Palliative radiotherapy	19 (8.5%)	15 (10.0%)	0.626
Palliative chemotherapy	0	1 (0.7%)	0.402
Best supportive care	16 (7.2%)	13 (8.7%)	0.598

Note: Bold values indicate significant differences ($p < 0.05$).

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CONFLICT OF INTEREST

None declared.

ETHICAL APPROVAL

As per institutional policy, this project was registered with local hospital's clinical effectiveness register. Project number was 10787.

AUTHOR CONTRIBUTIONS

Study concept and design: All. Data acquisition: LU. Data analysis and interpretation: LU and MSI. Statistical analysis: SM. Manuscript preparation and finalisation: All.

DATA AVAILABILITY STATEMENT

Anonymised data will be shared on individual's request.

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