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Patient Outcomes following palliative treatment only for newly diagnosed head and neck cancers

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Patient Outcomes following palliative treatment only for newly diagnosed oral and oropharyngeal squamous cell carcinoma

Abstract:

Objective: To identify the outcomes of patients following palliative treatment only.

Design: Retrospective study from 2008-2012 using consecutive patient clinic letters and cancer databases

Setting: Patients that present to Maxillofacial departments in NHS hospitals in North Wales

Participants: Patients that present with newly diagnosed oral, oropharyngeal and laryngeal carcinomas who upon a decision by a MDT are to be treated with palliative intent only. Patients with previous relevant surgery or radiotherapy, recurrences of tumours or presenting with a previous primary tumour are to be excluded.

Results: Patients to be treated with palliative care only fit the expected demographics. Longevity has increased from previous studies as well as the percentage of those dying at their preferred place of death, but still less than a third die at home or a hospice.

Conclusions: The majority of patients stay in hospital or return because of complications and ultimately die there.

Aims:

To explore various parameters that involve the included patients. Studying the demographics of those presenting, some of which are:

- patient sex;
- age at diagnosis;
- site, stage and histological diagnosis of the tumour;
- symptoms on presentation;
- social factors such as alcohol and cigarette consumption;
- palliation reason;
- cause and date of death;
- treatment involved,
- surgical intervention; and
- the place of death.

Hypotheses

The prevalence of risk factors for oral, oropharyngeal and laryngeal cancers, such as smoking and alcohol consumption, has decreased in recent years¹. It could therefore be expected that the prevalence of those presenting with incurable disease to decrease. There have been recent advances in imaging techniques and uses of biomarkers to diagnose head and neck cancers earlier². Earlier detection of advanced disease may confer a longer survival rate. As for place of death, congruency between preferred place of death and actual place of death would be expected to be better in the more recent years of this cohort.

Introduction:

Head and neck cancers can have major implications on basic everyday functions such as breathing,

drinking and eating, and curative treatment can be disfiguring³. Recent publications show that oral cancers accounted for more than 6,500 of newly diagnosed cancers in the UK per year⁴. Of these, the majority are squamous cell cancers⁵. Classically, those presenting with the disease would give a history of heavy alcohol consumption and frequent cigarette smoking which may have a synergistic effect⁶, therefore undeniably becoming obvious risk factors for aerodigestive tract cancers^{7,8}.

Patients that present with newly diagnosed head and neck cancers which are not suitable for, or have refused curative treatment, are cared with palliative only intent. Palliative care is designed to improve quality of life for patients with life-threatening diseases, and is often mediated by symptomatic relief⁹. During this end-of-life treatment, almost 75% of patients wish to be cared for and to die at home, but only around 25% do¹⁰.

This project aims to find how many patients die at their preferred place of death and, if this reflects the literature, whether something can be done in the future to rectify this.

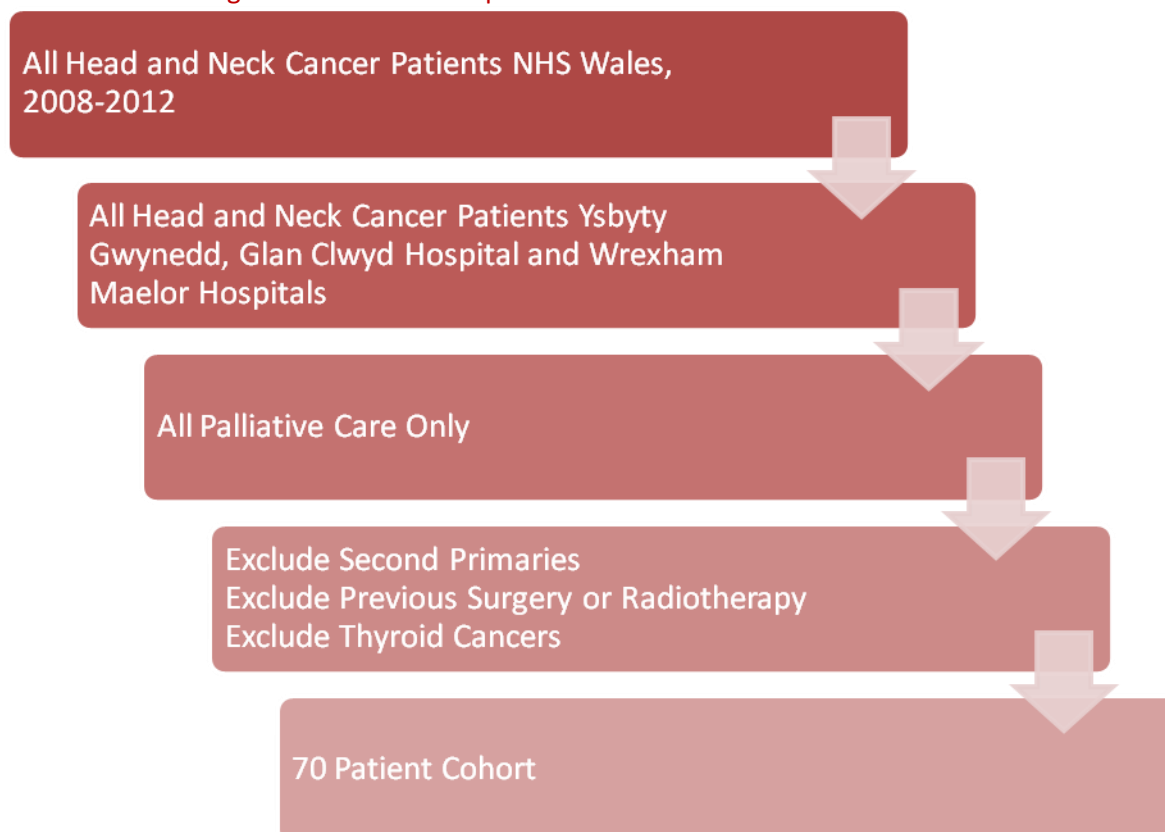
Methods:

Data within the parameters required was obtained in most part via databases from Cancer Services in North Wales. The ethics department of the Betsi Cadwaladr Health Board considers that this audit does not need ethical approval.

The data not acquired through the first database was then sought out via patient clinic letters, MDT meeting minutes and other surgical databases such as WCISU. The sample chosen best represents the majority of patients presenting to North Wales NHS centres with head and neck cancers with palliative only intent. The setting that patients presented to was NHS Hospitals in North Wales; Glan Clwyd, Ysbyty Gwynedd and Ysbyty Wrexham Maelor, where their care plan intent was decided by MDT to be palliative only. The same process is used in NHS hospitals across the UK and so to a certain extent the findings can be applied to other similar settings. The inclusion criteria used was broad, achieving a modest sample size generated from 5 years' worth of patients from 3 different hospitals in North Wales.

With retrospective cohort studies, the study could be easily reproduced as long as the inclusion, exclusion criteria and typical NHS MDT decision-making processes are the same or similar.

Flow chart showing database collection process



Results:

Data obtained between 2008 and 2012 was entered into CANISG and WCISU databases, patient clinic letters and MDT meeting minutes for 629 patients that presented with their first primary tumour of head and neck cancer to North Wales NHS centres.

From this group, 74 patients were decided by MDT to be treated with palliative intent only. The database pulled 4 patients that had thyroid tumours as their primary site and although they are classed as head and neck cancers, these four individuals were excluded since the project was looking for cancers with a mucosal-lined epithelia origin.

The 70 remaining met the inclusion criteria that it was their first primary tumour, had no recurrences and had not been treated with previous curative radiotherapy or surgery. Of these 70, there was a male preponderance with a ratio against female presentation of 1.8:1. The age at diagnosis of these patients ranged from 23 – 94 years. Although these ages are the extremes, the mean and median age at diagnosis represents the data better at 72.6 years and 75.5 years respectively.

The distribution of the 70 cancer patients by tumour staging pre-treatment was mainly advanced stage disease with the majority being variations on stage IV classes (Table 1). 10 patients did not have a record of their tumour stage, pre-treatment, within the resources. The majority of tumours were primary to the oral cavity, oropharynx and larynx, with the minority of cases presenting in sites such as sinuses, nasal cavity and major glands around the head and neck (Figure 2). On histological diagnosis, the bulk of cancers for palliative intent only were, as expected^{3,5,6}, squamous cell carcinomas.

Unfortunately, only a minority of patients had data on whether they used tobacco or consumed alcohol in their clinic letters and databases, so analysis here would not be representative.

The symptoms that the patients presented with were taken from clinic letters, and whilst more complete than the smoking and alcohol findings, the majority did not have any information from the resources. A meagre 13 patients had their symptoms on presentation recorded in clinic letters with the most common symptoms being pain and swelling.

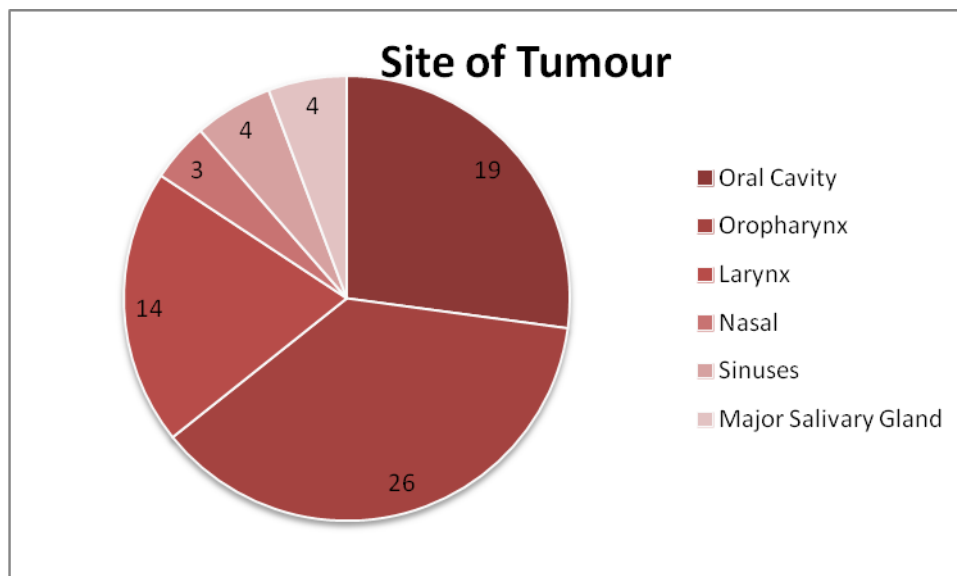
A slightly better response for the reason for palliation showed that 10/17 patients who were recorded, were treated with palliative intent because of advanced disease. This again, however, is hard to draw conclusions upon, based on the nature of the original sample size.

Table 1

Cohort Patients Outcomes	Number of Patients
Number of males	45
Number of females	25
Patient age at diagnosis (years)	
Mean:	72.6
Median:	75.5
Range:	23-94
Histology:	
Squamous Cell Carcinoma	57
Adenocarcinoma	1
Adenoid Cystic Carcinoma	3
Cribriform Carcinoma	1

Papillary Cell Carcinoma	1
Carcinosarcoma	1
Non-specified carcinoma	4
No Microscopic confirmation	2
Tumour stage pre-treatment:	
I	1
II	4
III	6
IVA	29
IVB	14
IVC	6
Unknown	10
Initial Treatment Received:	
Specialist Palliative Care	12
Chemotherapy	19
Radiotherapy	26
Surgery	4
Other	9
Surgical Intervention:	
No Intervention	60
Permanent tracheostomy	1
Diagnostic/Biopsy	6
Superficial Parotidectomy	2
Partial Maxillectomy	1
Place of Death:	
Hospital	35
Nursing Home/Hospice	8
Own Home	9

Figure 2



Even though there were some differences between the initial and planned methods of treatment, the main choice of treatment for palliative intent only was radiotherapy (26/70 initial). The remaining initial modalities are shown in Table 1. A small number of patients (10/70) underwent surgical intervention. More than half of those (6/10) were operated for diagnostic and biopsy intentions.

From the sample of 70 patients, 52 had died at the time of data analysis. From the 52 that have died, 35 of them had died at hospital (67.3%). 8 of the patients died at a hospice or nursing home and only 9 died at their own home. Although this is slightly higher than the 25% previously quoted (32.7%), this concurs with findings from previous studies^{10,11}.

The length of time of survival was calculated from the date of diagnosis until the date of death. The mean longevity since the time of diagnosis was 263 days. There are some extreme outliers in this range, with the shortest survival time from diagnosis being 6 days, to some that survive over 400 days.

Discussion

The demographics of patients presenting to North Wales NHS Hospitals with newly diagnosed head and neck cancer, to be treated with palliative intent only, remain as expected with previous literature^{4-6,8}.

Incidence of several types of head and neck cancers has been increasing since the mid-1970s^{12,13}. Research shows that this may be due to risk factors other than smoking and alcohol, such as the Human Papillomavirus, which was not taken into account in this project^{6,13}.

Longevity has been increasing overall for head and neck cancers in recent years and this may reflect the relatively long survival period for some patients in the cohort¹³.

Limitations of this study include the incomplete data for smoking, alcohol consumption, reason for palliation and symptoms on presentation. If patient notes were used, the data on a number of individuals may increase, but some of these factors may not even be recorded and would be difficult to quantify and compare.

The actual place of death for this cohort is largely dominated by hospitals, which, as previously stated, is often the least preferred place of death¹¹. There may be many reasons why preferred place of death is not met. Palliative care expertise, special dietary requirements, pain and airway management may be unfeasible and costly at a hospice or at their own home³. Any complications would necessitate a return to hospital which may be one of the reasons for a high number of hospital deaths.

Conclusion

Data collection provided a reproducible cohort with parameters that convey a sample with good generalizability. The sample fitted many of the demographics that were expected of similar cohorts. Results fitted with most of the hypotheses; that longevity has improved from previous years and that there were more people dying at their preferred place of death than in previous literature^{10,11}. As a thought for improving the preferred place of death, the decision for re-admission to hospital could be addressed to see if the patient's treatment or monitoring could be done in a hospice or their own home. This could lower the number of patients that have to return to die at hospital.

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