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Timing and presentation of recurrent oral and oropharyngeal squamous cell carcinoma and awareness in the outpatient clinic☆

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Abstract

The aim of this study was to assess the timing of outpatient review appointments in relation to tumour recurrence. A retrospective review of 278 consecutive previously untreated patients with oral and oropharyngeal squamous cell carcinoma (SCC) between 1995 and 1999 was performed. Information on the time of recurrence, site, presentation, treatment and outcome was collected. There were 54 (19%) patients who developed recurrent disease. Recurrence occurred at a median time of 8 months after the initial operation and most (49/54) within 2 years. Thirty-five patients (65%) presented with a new lump (7 local, 22 regional and 5 locoregional). Our policy is to review patients once a month for the first year and every other month for the second year. Patients were seen less frequently than expected, and one in five patients attended half or less than half as frequently as intended in the first year. Although 20 patients were aware of new symptoms from their recurrent disease fewer than half (9) brought their appointment forward. This study has emphasised the need for close clinical follow-up of patients previously treated for oral/oropharyngeal SCC if recurrent tumours are to be discovered and treated at the earliest opportunity.

Keywords: Oral cancer; Oropharyngeal cancer; Recurrence; Outpatients; Follow-up

Introduction

Publications are scant about the value of routine follow-up of patients who have been treated for cancer of the head and neck. Previous authors have proposed several objectives of follow-up including the identification and correction of complications, support of patients and carers, early detection of recurrences, detection of secondary neoplasms and evaluation of treatment.[1–4]

During the first and second postoperative year, one of the key issues is recurrence of the tumour. Local recurrence is defined by a tumour developing from residual microscopic foci of tumour cells left in the operative site.[5] Recurrence has profound implications both for further treatment and also for long-term survival. The pathological parameters relating to recurrence have been described,[5] but there is relatively little consideration given to the timing of recurrence in the context of scheduled outpatient follow-up appointments. There is a lack of clear guidelines or standards as to the frequency of recall in the first 2 years following treatment with curative intent. Practice care guidance for clinicians participating in the management of head and neck cancer patients in the UK were published in the *European Journal of Surgical Oncology* in 2001[6] and these advised 4–6 week follow-up in the first 2 years, 3 monthly follow-up from 2 to 4 years and 6 monthly follow-up in years 4 and 5 and annually thereafter.

During the first 5 years, the timing of outcome in relation to tumour recurrence and the most appropriate examination has been explored by several authors. Boysen reported the progress of 214 previously untreated patients with squamous cell carcinoma of the head and neck.[1] Among the 154

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patients considered free of disease after primary treatment, 54 patients developed recurrence and all but three occurred within 3 years. They highlighted the anxiety patients' experience associated with routine follow-up and the psychological impact of multiple hospital visits. Their opinion was that there was still no need for patients to adhere to a fixed follow-up programme and appointments should be tailored to the individual patient. Boysen's subsequent paper in 1992[2] reported on a 3-year follow-up period for 661 patients with head and neck carcinomas.[2] With an average follow-up of 3 years, 7813 follow-up consultations revealed 220 recurrences. In their discussion, they proposed that more time spent on patients' education about possible signs and symptoms that could occur in a recurrent tumour would allow patients to present earlier, thus improving survival rates. They also proposed that it would be possible to reduce a number of follow-up consultations beyond 3 years without compromising the functional, social and psychological support that regular follow-up affords. Snow[3] commenting on Boysen's paper contradicted the suggestion of patient education relating to neck recurrence quoting papers that at each follow-up appointment the neck should be examined with ultrasound and any nodes with a minimal axial diameter of more than 4 mm should be examined by ultrasound-guided aspiration cytology.[3] He also advocated yearly chest radiography.

In view of the diversity of opinion concerning outpatient follow-up, we thought it worthwhile to review our practice in the era of primary surgery with microvascular free tissue transfer for oral and oropharyngeal squamous cell carcinoma. The aim of this study was two-fold: firstly, to audit the frequency and timing of outpatient review appointments in those patients with tumour recurrence; secondly, to gain an indication of patients awareness and the influence that this might have had on the timing of review. These factors could then be assimilated in an attempt to assess whether a clinician can depend on patients to recognise tumour recurrence and act upon it appropriately, and if they can then what influence could this have on review policy.

Patients and methods

The study sample consisted of all consecutive patients undergoing primary surgery for previously untreated oral and oropharyngeal squamous cell carcinoma (SCC) presenting to the Regional Maxillofacial Unit, Liverpool, between the years 1995 and 1999. In July 2003, a structured evaluation of recurrence was performed using the Units' oncology database, histopathology reports and death certificates. Firstly, all patients on the database who were recorded as having recurrence were identified. Histopathology records for all 278 consecutive patients were examined and patients with recurrent lesions were identified. This involved examination of all the original histopathology reports so that patients with true recurrences could be differentiated from those with field change or with new tumours (see below). Subsequent review of death certificates allowed identification of patients in whom the cause of death was stated to be squamous cell carcinoma. Subsequent casenote review allowed further identification of patients with clinical or radiographic diagnoses of recurrences not formally identified by the previously described methods.

The computerised booking system at the hospital together with the medical notes was used to identify the dates and frequency of outpatient visits. The units' policy is that patients in the first year of follow-up are seen at monthly intervals, in the second year at 2 monthly intervals and thereafter, at 3 monthly intervals.

Calculations were made for every patient of the ratio of months in which patients attended to months they could have attended as outpatients. The aim was to assess potential shortfall in attendance. Thus, for example, a patient in hospital for 3 months after surgery could only have attended as an outpatient for the remaining 9 months of the first year of follow-up. If the patient only attended in three of these months, the ratio was 3/9 or 0.33. The ideal or intended ratio for each patient was 1 for year 1 and 0.5 for year 2.

Assessment of patient awareness was inferred from the medical notes, as this was a retrospective study. Patients were considered aware of their recurrence if there was an entry on the date of their clinic attendance or on the database documenting new symptoms associated with recurrent disease. The new symptoms were not attributable to side effects of treatment and were broadly categorised into pain, a lump, an ulcer, or swallowing difficulties. In addition, if patients brought forward their planned appointment time due to new symptoms they were again considered aware of their recurrent lesion. Each patient was assessed using both methods but there was no double-counting, i.e., if a patient's record recorded new symptoms and they brought their appointment forward then this still counted as only one patient. Patients were considered unaware of their recurrent disease if it were inferred from the medical case notes or database entry that they were asymptomatic at the time of clinic attendance. These limitations on assessment of awareness were felt unavoidable as this was a retrospective study.

Survival data were acquired through the regional units' links to the Office of National Statistics (ONS). Follow-up status was checked with ONS to 30 June 2003, hence a minimum of 42 months follow-up for patients in the cohort.

Results

Of the 278 new patients treated between 1995 and 1999, 54 (19%) developed recurrent disease (Table 1). Eighteen patients had their recurrence recognised histologically, 17 had their recurrence diagnosed by radiological imaging (11 by magnetic resonance imaging (MRI) and 6 by computed tomography (CT)) and 14 had their recurrence confirmed by