

EARLY ORAL CANCER: TREATMENT BY BIOPSY EXCISION

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Summary. 20 (6.4 per cent) of 313 patients with squamous carcinoma of the oral cavity (excluding the lip) had a tumour which was small and superficial enough for treatment by one stage biopsy/excision. No patient has died of his disease or developed a primary recurrence at periods ranging up to 12 years, but 10 per cent have developed nodal metastases. The stay in hospital is brief, and the morbidity is small, but a slight deterioration of the patients' speech resulted.

Introduction

The best form of treatment for the different stages of squamous carcinoma of the oral cavity has yet to be decided. Surgery, radiotherapy and, lately, chemotherapy, have all been used alone or in combinations and each has a considerable morbidity and mortality. Currently interest has centred on the treatment of the advanced lesion, as most lesions are advanced when first seen. One of the paradoxes of oral cancer is that although the mouth is readily available for inspection by the patient, his doctor and dentist, few tumours are diagnosed when small. A large series from the Memorial Hospital, New York, showed that only one tumour in five presents in an early phase (Stage I), that two out of three are in a moderately advanced (ie. Stage II and III) stage, and 10 per cent are at a stage which is incurable (Harrold, 1971). Furthermore these proportions have not altered from 1935 to 1963. Small lesions of the tongue, less than three centimetres in diameter, can usually be cured by surgery or radiotherapy (Batsakis, 1979).

It is recognised that small superficial oral cancers can usually be cured by minor procedures (Shedd, 1971). There have been very few reports of the treatment of small superficial cancers, possibly because there is no separate T classification for them and they are thus overlooked in a large series encompassing tumours of all sizes (Mashberg, 1976).

We wish to report the results of a series of patients with small superficial squamous cell carcinomas of the mouth treated by biopsy excision.

Patients and Methods

This report is based on 372 patients with squamous cell carcinoma of the oral cavity (excluding the lip) seen at the Liverpool ENT Hospital from October 1965 to October 1978 and the Royal Liverpool Hospital from October 1978 to December 1981. Of these 59 patients had received treatment elsewhere before, and this report is based on the remaining 313 previously untreated patients. The site and stage of their primary tumour are shown in Table I, using the UICC (1978) classification.

20 patients (6.4 per cent) were considered suitable for treatment of their tumour by biopsy excision. These patients all fulfilled the following criteria:

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Table I
Site and stage grouping of primary tumour (UICC 1978), (previously untreated patients)

	Stage			
	I	II	III	IV
Buccal Mucosa	8	12	8	8
Lower Alveolus	9	12	15	23
Upper Alveolus	9	3	5	0
Hard Palate	4	1	3	2
Floor of Mouth	17	17	34	21
Tongue	33	22	28	19

Table II
Details of patients

Sex	Age	Site	Repair	Stay in hospital	Later neck dissection	Fate	Survival (months)
F	70	Tongue	Primary Suture	9	—	ICD	28
F	65	Tongue	Primary Suture	1	—	A	141
F	69	Buccal Mucosa	S S G	20	—	ICD	26
F	82	Lower Alveolus	Primary Suture	0	—	A	7
M	60	Tongue	S S G	8	—	A	7
M	44	Tongue	Primary Suture	26	—	A	3
F	54	Tongue	Primary Suture	7	—	A	92
M	69	Floor of Mouth	Primary Suture	12	+	A	79
F	65	Tongue	Primary Suture	1	—	ICD	25
M	68	Floor of Mouth	S S G	8	—	A	57
M	65	Floor of Mouth	S S G	6	—	A	49
M	58	Buccal Mucosa	Primary Suture	1	—	A	48
F	41	Buccal Mucosa	S S G	8	—	A	6
M	72	Primary	Suture	0	—	A	42
F	83	Tongue	Primary Suture	3	+	A	38
M	61	Tongue	Primary Suture	*	—	A	36
F	65	Tongue	S S G	4	—	A	22
M	23	Tongue	S S G	8	—	A	22
F	59	Buccal Mucosa	S S G	6	—	A	13
M	76	Tongue	Primary Suture	5	—	A	9

* Records incomplete

S S G = Split skin graft

A = Alive

ICD = Death from intercurrent disease

- (1) Their tumour was two centimetres or less in greatest diameter.
- (2) Their tumour was superficial.
- (3) There was no erosion of the mandible on radiographs.
- (4) There were no palpable nodes in the neck.
- (5) The patient was fit, and able to attend for regular follow up.

The details of all the patients are shown in Table II.

Three patients had a previous diagnosis of leukoplakia (WHO, 1978) and one of lichen planus (Lucas, 1972). One patient had a previous primary carcinoma of the Head and Neck.

The tumours were excised under general anaesthesia with at least a one centimetre margin in all directions. The specimen was marked to allow histological verification of complete excision. The defect was closed, either by primary suture or by a skin graft. In earlier cases the split skin graft was sewn over a bolster which was removed later. More recently the quilting technique has been used (MacGregor, 1975).

Assessment of articulation

12 patients underwent assessment of their articulation using the test described by Hoover, Bradley and Stell (1982).

Follow up and analysis of the data

All patients were reviewed personally. The median period of follow up was 32 months (range 3–141), and no patient has been lost to follow up.

Results

No patient has died of their original cancer in a follow up period varying from three to 141 months. Three patients have died of intercurrent disease; one of Hodgkin's disease, one of a carcinoma of the lung, and one of cardiovascular disease.

There has been no recurrence at the primary site, but two patients have developed a node in the neck at 14 and 42 months.

The median stay in hospital was six days (range 0–26). There have been few complications—two patients had a secondary haemorrhage requiring suture and which prolonged their stay in hospital.

Histological examination showed that the lesions had been completely excised in every case, except one in whom there was some doubt about one margin.

Articulation tests showed that patients treated by biopsy excision had a median score of 85 per cent of the maximum total possible against 92 per cent for normal controls. These differences were statistically significant (Hoover, Bradley & Stell, 1982).

The patients who were still available were questioned about diet and drinking. All were able to eat a normal diet, and none had salivary incontinence.

Discussion

We found that treatment of a mouth cancer by localised biopsy excision was possible in only 6.4 per cent of all patients with oral cancer. It is perplexing that so few patients present when the tumour is small, considering how accessible the mouth is for inspection. It has been shown that 70 per cent of oral cancers were thought to be benign by the dentist who first saw them (Coffin, 1964), but it has been suggested

that the patient ignores the lesion in its early stages because it is painless (Shedd, 1971).

Williams (1981) surveyed all known cases of carcinoma of the mouth and oropharynx in a stable population, and found that the patient was mainly responsible for delay in diagnosis. More than half had a symptomless primary tumour (which either presented with a gland in the neck or was found incidentally) or were very elderly. He postulated that cancer education could have contributed to earlier diagnosis in less than 20 per cent of his patients.

We found that the commonest suitable site was the tongue, followed by the lower alveolus/floor of the mouth, and the buccal mucosa. Mashberg *et al.* (1976) found that much the commonest site of small oral neoplasms was the floor of the mouth, followed by the tongue. Lesions on the alveolar ridges, the buccal mucosa, and the hard palate were rare in their experience.

A series of early carcinomas of the floor of the mouth treated by local intraoral excision was reported by Schramm *et al.* (1900). They treated 26 patients, but did not report the total numbers of patients seen with oral cancer in the same period. They had no local recurrences (in an unspecified time interval) but four of their patients had later metastases in the neck, and seven later developed a second Head and Neck neoplasm. They claimed that the mobility of the tongue, speech and swallowing were normal after their procedure, but did not record if objective measurement was used.

The survival of our patients is similar to that reported by Schramm (1980): None of our patients has died of disease at periods ranging up to 12 years, but two of our patients have developed a lymph node metastasis in the neck, fortunately controlled so far by radical neck dissection. Like Schramm we have not seen a recurrence at the primary site. Only one of our patients developed a second primary tumour in the Head and Neck compared with 27 per cent in Schramm's series. Second primary Head and Neck cancers are much less common in the UK than in North America, for reasons as yet unknown.

The median length of stay in hospital in this series was six days, compared to ten days in Schramm's. A short stay in hospital becomes ever more important, whoever pays the bill.

Measurement of articulatory capacity showed that our patients had a slight but significant interference impairment of speech, similar to that suffered by patients treated by radiotherapy. Schramm stated that their patients' speech was normal, but gave no details of measurement.

Biopsy excision of a small mouth cancer is a very worthwhile procedure, which sadly can only be applied to few patients. Assuming that many oral cancers pass through a small stage, the survival in oral cancer could be greatly improved if more patients were treated at this stage. It therefore, would be of practical value if more could be done to educate the medical profession and the general population to seek early treatment.

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