

PRACTICE OBSERVED

Practice Research

Sources and patterns of referrals of oral cancer: role of general practitioners

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Abstract

Referrals of patients with oral squamous cell carcinoma to an oral medicine clinic were assessed with regard to the sources, delays, and pattern of referrals from general medical practitioners and general dental practitioners. Slightly more patients were referred by dental practitioners than by medical practitioners, but general medical practitioners were far more likely to see advanced tumours and to request an urgent second opinion or suggest a diagnosis of malignant disease. The greatest delay overall was caused by the patients seeking advice from their practitioners, particularly those who attended a general medical practitioner. Both groups of practitioners requested a hospital opinion within roughly a month—a reasonable interval. Subsequent delays were minimal. Delays occur mainly because the patients are slow in seeking professional advice and, in general, do not appear to have been reduced over the decade since a previous British study on referral patterns was carried out.

This study emphasizes the importance of educating patients about oral cancer since it is they who appear to be mainly responsible for the delays in diagnosis. The results also help to dispel the myth that general practitioners were with the least competence at diagnosis and referral of patients with oral cancer than are dental practitioners, though we are aware of misdiagnoses from both groups.

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Introduction

Early diagnosis is one of the most important factors affecting the prognosis in patients with oral squamous cell carcinoma. Yet despite the accessibility of the examination roughly a quarter to a half of patients present with advanced lesions.¹⁻⁴ The results of a British study into factors that affect early diagnosis, carried out in the early 1970s, showed a substantial delay in the diagnosis of oral cancer both by general practitioners and dental practitioners.⁵ No subsequent study has determined if there have been any improvements in the United Kingdom following reports emphasizing the dangers of delay in diagnosis.⁶ It has also been suggested that general medical practitioners are less likely to diagnose oral carcinoma than are dental practitioners,⁷ yet there is little objective evidence for or against that.

We have therefore compared the referrals for oral cancer by general practitioners and dental practitioners to determine whether there has been a reduction in the delays during diagnosis and to assess the relative performance of both groups of practitioners.

Methods

The referrals of the last 58 patients with oral squamous cell carcinoma who attended the oral medicine clinic at this hospital between 1982 and 1983 were reviewed. Thirty one (53%) of these patients were men; the median age of the group was 79 years (range 35 to 94 years). The sources, delays, and degree of urgency expressed in the patients' referrals, as well as clinical information about the tumour, were recorded. The delays in diagnosis of the tumours were examined in terms of delays caused by the patient, by general and dental practitioners, or by the hospital. The delay by the patient was estimated as the period between the day of the patient's admission being aware of symptoms until the first consultation with a general practitioner or a dental practitioner. The delay by practitioners were defined as the time from the day of the first consultation by the patient until the date of the referral letter to the oral medicine clinic. The delays by the hospital were the periods between the date of the referral letter and the first visit of the patient to the clinic, from then until the day of histological confirmation of the diagnosis, and from then until the first visit to the operator carrying out treatment.

Results

Twenty four (41%) of the 58 patients were referred to the oral medicine clinic by their dental practitioner and 16 (28%) by their general practitioner. The rest of the patients were referred by other hospital departments (25%) or were casual patients (6%). The age of patients attending the dental practitioner (median 69 years, range 35-94) was similar to the age of those attending the general practitioner (median 68.5 years, range 48-86). Virtually all patients who were referred to the oral medicine clinic had intraoral carcinoma, and there was little difference in the site distribution of tumours between those referred by either group of practitioners (table I). The complaint in most of the patients who were referred was of a persistent mouth ulcer (over 50% or a white lesion (over 20%) (table 1). At the time of their hospital appointment 62% of patients who had attended a dental practitioner had an early carcinoma of less than 2 cm in diameter, with no cervical lymph node involvement (stage I), whereas a similar percentage of those who had attended a general practitioner had more advanced malignancy, with tumours in excess of 4 cm diameter, often with regional lymphadenopathy (stage II or III) (table 1). It was not possible to assess completely the socioeconomic status but 21% of patients visiting general practitioners and 25% of those visiting dental practitioners were of professional standing.

An estimation of the degree of urgency in the referral letters showed general practitioners to be suspicious of the nature of the lesion more often than dental practitioners: 63% compared with 17% asked for an urgent appointment for their patient or suggested a serious diagnosis, or both. Of the patients referred by general practitioners, the patients had advised the

TABLE I—Site, clinical appearance, and stage of oral carcinoma in relation to source of referral

	% of patients referred by	
	General practitioners	Dental practitioners
Site		
Lip	0	3
Buccal mucosa	29	18
Flora of the mouth	12	21
Alveolar mucosa	8	26
Palate	8	9
Oral cavity (other sites)	0	6
Stage		
Stage I	52	57
Stage II	26	24
Stage III	19	17
Stage IV	3	0
Stage V	0	0
Urgency*	40	62
Urgent	13	18
Not urgent	27	0
Not known	0	0

*Urgency carried out to hospital: stage I (T1, N0, M0); stage II (T2, N0, M0); stage III (T3, N0, M0); stage IV (T4, N1, M0); stage V (T4, N2, M1) or any T, any N, M1. T1: Tumour less than 2 cm in greatest dimension; T2: Tumour more than 2 cm but less than 4 cm in its greatest dimension; T3: Tumour more than 4 cm in its greatest dimension; T4: Tumour with extension to any structure, skin, sinuses, neck, etc.; N0: No cervical lymph node involvement; N1: involvement of one or two lymph nodes; N2: involvement of three to six lymph nodes; M0: no distant metastases; M1: distant metastases.

TABLE II—Delays in diagnosis and treatment of oral carcinoma

	Delay (days)	
	Median	Range
1. First awareness by patient until consultation with general practitioner	74	67-82
2. Referral to oral medicine clinic	15	0-17
3. Delay from consultation with general practitioner until referral to oral medicine clinic	41	0-109
4. Delay after referral letter*	19	0-17
5. Delay from referral letter to oral medicine consultation	15	0-17
6. Delay from oral medicine consultation to histological diagnosis	4	0-25
7. Delay from diagnosis to start of treatment	7	0-40

*Referrals from general practitioner or dental practitioner. *Delayed only orally. *Delayed treatment initially.

general practitioner's opinion about 75 days after their first day of awareness of the lesion, whereas the patients who had been seen by dental practitioners had waited them only 19 days (table II).

Both groups of patients were aware of their practitioners for about one month before referral to the oral medicine clinic. Table II shows that the median delays during consultations were 31 days for patients attending their general practitioners and 40 days for those attending dental practitioners, though there were a few delays of six months or more. The delay by the hospital was minimal (table II); a median of only four days elapsed between the date of the referral letter and attendance at the oral medicine clinic, and four days later the lesion was confirmed histologically to be malignant. A median of one week elapsed until the patient started treatment. Longer delays were apparent in hospital from time to time but mainly where patients with epithelial dysplasia were being followed up or where patients defaulted from treatment.

Discussion

The group of patients with oral carcinoma in this study was similar in sex and age to those in a previous British study by Cooke and Tapper-Jones, but most patients in this study were referred by their dental practitioners, whereas in the other study most were referred by their general practitioners.⁵ The findings in North American studies suggest that, as shown in our study, about 40% of patients are now referred by dental practitioners.⁸ Cooke and Tapper-Jones examined patients who were seen in Cardiff Dental Hospital between 1955 and 1974, whereas in our study patients who were seen in Bristol Dental Hospital between 1982 and 1983 were examined. Although the studies are not directly comparable, there seems to have been no substantial reduction in the delays in diagnosis over the past decade.

No clear relation was found between the age, sex, clinical appearance, or site of the tumour with the patient's preference to visit either the doctor or the dentist. Few patients with labial carcinoma were seen, and experience suggests that this group is often referred to plastic, general, or ear, nose, and throat surgeons. There was a tendency, however, for patients with oral cancer to delay seeing their general practitioner and for patients attending general practitioners to have more advanced disease. This is in contrast to one American study which suggested that there was less delay in the diagnosis of advanced tumours.⁹ The reason for patients with advanced tumours presenting mainly to general practitioners is not completely clear and appears not to be related to socioeconomic status but to age. More younger patients seemed to attend the dental practitioner, and the difference may be related to the patient's awareness of the dental practitioner's role. The type of complaints seemed to be unrelated to the patients' preference to visit either practitioner, as both groups of patients complained of soreness, difficulties in eating, pain, inability to wear dentures, or the presence of an ulcer or a white or red lesion in the mouth. The accuracy of the apparent delay by the patient in attending a practitioner is, of course, open to question, since patients tend not to admit fully their neglect of symptoms.

During general practitioner consultations various drugs were prescribed, in general antimicrobials (mainly antifungals) and analgesics. Dental practitioners adopted a more mechanical approach, adjusting or making new dentures, extracting teeth close to the lesion, or carrying out periodontal treatment. A similar variety of initial treatments was found in an American survey,¹⁰ and the plethora of different treatments clearly reflects the restrictive nature of some practitioners to diagnose early oral carcinoma.

Since, in general, dental practitioners have received more training in oral diagnosis and should surely have more experience than most general practitioners, a most interesting finding was that general practitioners were more likely, rather than less likely, to emphasize the urgency of a consultation or suggest a diagnosis of malignancy. The higher degree of suspicion of malignancy by general practitioners may not necessarily mean of course that they were more accurate than dental practitioners since the lesions were more advanced and it is not known whether, for example, general practitioners routinely consider persistent oral lesions as malignant. These findings, however, help to dispel the belief that general practitioners are less likely to make the correct diagnosis in patients

with oral cancer.¹¹ The delay in patients with oral cancer attending for specialist treatment after seeing the general practitioner appears to be caused mainly by the patient's tardiness in seeking advice rather than by late referral by the general practitioner. Some very late referrals were made, however, with delays by the practitioner of up to six months or more. The most reassuring finding is that the delays at the hospital were minimal. It took on average less than one week for the patient to receive specialist advice, then one week for histological confirmation of diagnosis, and then one week until treatment was started, although a few patients initially refused biopsy or treatment.

Given that the delays in diagnosis were mainly caused by the patient and practitioner together (about 10 weeks), efforts should be made to reduce this delay particularly by alerting the public to examine their mouths regularly and to visit their dental practitioner or general practitioner if they have an oral ulcer, white lesion, or other unusual complaint that persists for more than three weeks.

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Patterns of contraceptive pill taking in an inner city practice

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Abstract

A total of 161 patients completed a questionnaire about their pattern of taking the oral contraceptive pill. Only 28% (45) of patients were taking the pill according to the manufacturer's instructions, and in the event of the pill being missed only 26% of patients would use a sheath. A tenth of the patients believed that anaesthetics always indicated pregnancy, but 35% believed that anaesthetics were harmful to the body. This group did not differ in their pill taking from the remaining 65% of patients.

Introduction

Attention has been drawn to the difficulties experienced by patients in stopping, starting, and changing oral contraceptive treatment.¹ Iatrogenic complications have been thoroughly investigated,² but little emphasis has been given to the knowledge and attitudes of patients concerning their treatment. Despite attempts at standardisation, the information that is given to patients is often confusing and may be conflicting.

A study was designed to assess whether women were taking the pill according to instructions given verbally when they were started on the pill and as printed on the inserts in the pill packets. Their attitude to menstrual irregularity was also assessed.

Method

The patients were recruited from the authors' practices from the north and west of Glasgow. They were classified by husband's occupation, which showed a strong bias to social classes IV and V, although all social classes

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were represented. The total number of women aged 16 to 35 in practice A was 519 and in practice B 367; 43% of the women in practice A and 38% in practice B signed EC102 forms.

Any woman aged 16 to 35 years who contacted her general practitioner and was known to be on the contraceptive pill was asked by the general practitioner to complete a questionnaire (table 1) and return it to the receptionist; if the consultation had included instruction on taking the pill the patient was excluded from the study. All patients were obtaining their contraceptive pill from the general practitioner, although some had been started on treatment at a family planning clinic or in a previous practice. The patients were given no instructions on how to complete the confidential

TABLE 1—Pill use questionnaire

I am trying to see how well the pill packets explain how to take the pill. To help with this, please would you complete the following questions. This is completely confidential.

Which pill are you on?
 How long have you been taking it for (tick one):
 Less than three months
 Three months to one year
 Over a year

At the end of your packet of pills which of the following do you tick (tick one):
 Go to the next packet on the first day of your period?
 Wait until the fifth day of your period to start the next packet?
 Start the next packet whenever your period ends?
 Start the next packet exactly one week later only if you have stopped bleeding?
 Start the next packet exactly seven days after finishing the first packet, whether you are bleeding or not?
 Other, please state:

If you do not see a period, would you tick one:
 Start your next packet of pills
 Wait until the next period of pills
 Go to the chemist for a pregnancy test
 Wait until the next period of pills
 Wait a further month to see if your period would come

Would you tick one:
 Do you think that missing a period always means you are pregnant? Yes/no
 Do you think that missing a period does not mean you are pregnant? Yes/no
 Do you take your pill?
 Yes
 No
 Every morning? Yes/no
 Every evening? Yes/no
 Once a week? Yes/no
 Twice a week? Yes/no
 How many missed pills in the last three months? Yes/no
 If you miss a pill:
 Do you take it as soon as you remember? Yes/no
 Do you use a sheath for the rest of the month? Yes/no
 Do you use a sheath the next time you have sex? Yes/no
 Do you use a condom for the rest of the month? Yes/no
 Do you use a condom if you don't get pregnant? Yes/no
 Thank you for your help.

questionnaire. The study was conducted over nine months. The length of treatment with the pill was assessed as under or over one year because we believed that a pattern of pill taking would have been established within 12 months.

Results

All 161 patients completed the questionnaire, no questionnaire was spoiled or unusable for collation of data, and no patient refused to enter the data of the doctor working in them, nor in the results from the two practices when compared.

Sixty eight per cent (109) of patients had been taking the oral contraceptive pill for over 12 months, 24% for 3 to 12 months, and 8% for under three months. The time of day of taking the pill varied (table II), and 27% of the patients had missed a pill in the past three months (table II). Of the 35

TABLE II—Timing of taking the oral contraceptive pill and incidence of missed pills

Timing	No.	%	No. who have missed pill in past three months
Time varies from day to day	35	22	14
Every morning	91	57	22
Same time every day (unspecified)	14	9	0
No answer	1	0	0

patients who took the pill at a variable time throughout the day, 40% stated that they had missed a pill in the past three months, compared with only 24% of the 122 patients who took the pill at the same time each day. The difference, however, was not significant ($p=0.07$). The incidence of missed pills was unaffected by the length of time that the woman had been taking the pill ($p=0.1$).

The patients who had been taking the pill for under 12 months did not show a significantly higher use of a sheath after missing a pill ($p=0.1$). Thirty one (72%) of those who missed a pill in the past three months did not take additional precautions, and only 43 (27%) of all the patients stated that their partners would use a sheath after a pill was missed. Three of the 12 patients who were taking the progestogen only pill, however, had missed pills, and none had used a sheath.

Table III gives the method of starting the next packet of pills. Three of the 12 patients on progestogen only pills did not take the pill during menstruation. If a menstrual period did not occur 58% would start the next packet of pills, whereas 39% would not. One patient did not reply to this question. If a period was missed 58% would see the doctor, 10% attend the family planning clinic, and 3% go to the chemist for a pregnancy test. Another 29% would wait a further month for their next period before seeking advice; the behaviour of those who believed that missing a period was harmful did not differ appreciably from that of the remainder of the group. Ten per cent of patients thought that missing a period always meant they were pregnant, and 5% believed that missing a period was harmful.

None of these women became pregnant during the study or in the following three months. None of the new bookings at the antenatal clinics in the two practices could be attributed to failure to take the pill.

Discussion

Although all patients for oral contraceptive pills contain a detailed leaflet, the instructions appear complicated and do not contain advice to take the pill at the same time every day. Roughly a quarter

(27%) of our patients had missed a pill in the past three months. The advice regarding the seriousness of missing pills in conducting Manufacturers' leaflets advise additional protection if a pill is missed for more than 24 hours. Most family planning clinics and we ourselves advise the "14 day rule": if the pill has been missed for less than 12 hours it should be taken as soon as remembered with no extra precautions. If more than 12 hours pass the partner should use a sheath during sexual intercourse for the next 14 days. In a study on the risk of pregnancy because of missed pills, however, only when three or more pills were missed did the pregnancy rate rise, and then especially in women taking the very low dose formulations.

All the pill leaflets for 21 day formulations explain that the patient should have a break of exactly seven days after the last pill and start the next period, provided that they have had a "menstrual period". Only 68% of our patients, however, would follow this advice, and the next largest group would wait until the fifth day of their period and then start the next packet. This confusion is almost certainly due to the advice about starting a new pill on the fifth day of the cycle. Only 39% of patients would not start their next packet if they did not have a period, despite manufacturers' leaflets stating that they should not start until consulting their doctor. Of the 58% of patients who would see the doctor, half would have started the next packet.

In this population of women who are sufficiently educated to seek advice on contraception there is an interestingly high degree of misunderstanding about female physiology. Despite sex education in schools and freely available counselling and advice, 35% of patients believed that it did their body harm not to menstruate, and 10% thought that missing a period always meant that they were pregnant. The instruction leaflets in pill packets explain that in the event of missing a period, if all the tablets have been taken correctly, it is "very unlikely" that the woman is pregnant.

Despite the care taken by manufacturers and the medical profession to explain the technique and the possible consequences of the use and abuse of the contraceptive pill, a large number of our patients are not following recommended procedures. More evidence needs to be gathered about safety margins of poor compliance with pill taking to allow the instructions to be simplified.

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