

## Use of complementary and alternative medicine by patients attending a head and neck oncology clinic

M SHAKEEL, J R NEWTON, J BRUCE, K W AH-SEE

### Abstract

**Introduction:** Within the United Kingdom, there are 50 000 practitioners of complementary and alternative medicine, with five million people consulting these practitioners yearly. The aim of this study was to explore the use of such therapies by patients attending a head and neck oncology clinic in Aberdeen.

**Method:** Questionnaires were distributed to 200 patients over an eight-week period. The questionnaire consisted of questions regarding: demographic factors; 48 listed herbal preparations and alternative therapies; reasons for their use; and opinions on their efficacy.

**Results:** One hundred and thirty-eight patients completed the questionnaires. Fifty per cent (69/138) of respondents had used complementary and alternative medicine previously, with 26 per cent having used it in the preceding year. Fifty-five per cent of respondents learned about complementary and alternative medicine use from friends, and the majority obtained such medicines by purchasing from a shop. Fifty per cent (34/69) of respondents stated that their family physician was unaware of their use of complementary and alternative medicine.

**Conclusion:** All medical practitioners should be aware of increasing complementary and alternative medicine usage by the United Kingdom population, and should be able to counsel patients appropriately.

**Key words:** Head and Neck; Cancer; Alternative Medicine; Complementary Medicine

### Introduction

The term 'complementary and alternative medicine' encompasses a wide range of health-related therapies which are often considered to be outside mainstream biomedical practice.<sup>1</sup> There is ample evidence to suggest that complementary and alternative medicine use in Westernised society has increased steadily, particularly over the last 15 years. Population-based surveys have provided estimates of increased use and demand for complementary and alternative medicine products in the United Kingdom and the United States.<sup>1–3</sup> This trend is particularly obvious in the field of cancer and palliation.<sup>4</sup>

There is very little literature available on usage of complementary and alternative medicine in patients attending head and neck oncology clinics.<sup>5</sup> This is despite complementary and alternative medicine being described as an integral part of palliative care of head and neck cancer.<sup>5</sup>

The aim of this study was to identify the prevalence and usage pattern of complementary and alternative medicine used by a consecutive sample of patients attending the head and neck clinic of a teaching hospital in north-east Scotland.

### Patients and methods

A total of 200 consecutive patients attending the Aberdeen Royal Infirmary head and neck clinic between October and December 2005 were invited to participate in the study. Patients less than 16 years of age and non-English-speaking patients were excluded. The selected patients were provided with a questionnaire, along with an information sheet detailing the authors' study.

The questionnaire was similar to those used in previous surveys. It included a tick list of 48 common herbal preparations and alternative therapies. It also contained items on age, sex, marital status, level of education, reason for use, opinion on complementary and alternative medicine efficacy, and whether the patient's general practitioner knew of their complementary and alternative medicine use. The patient's reason for attendance at the clinic was recorded from their medical record.

### Statistical analysis

Data were collected using Microsoft Excel software and analysed using the Statistical Package for the Social Sciences version 13.0 for Windows software.

From the Department of Otolaryngology, Aberdeen Royal Infirmary, Scotland, UK.

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Descriptive statistics were used to explore ‘ever vs never’ use of complementary and alternative medicine by demographic parameters, including age, sex, marital status and education. Education level was classified as university or college, school qualification only, or less than completion of high school level. Chi-square tests were used, and a *p* value of <0.05 was considered statistically significant.

**Results**

*Sample characteristics*

The questionnaire was distributed to 200 patients over the eight-week study period. Of these patients, 138 completed the questionnaire fully and could be included in the study. Patients’ reasons for attendance at the head and neck clinic are documented in Table I. Of the 138 respondents, 84 (61 per cent) were male and 54 (39 per cent) were female (Table II). Seventy-five per cent of patients (103/138) were older than 50 years, 62 per cent (86/138) were married and 42 per cent (58/138) had not completed high school education (Table II).

TABLE I

PATIENTS’ REASONS FOR HEAD & NECK CLINIC ATTENDANCE

Diagnosis	<i>n</i>
Larynx or pharynx Ca	35
Neck lump	26
Post-op	20
Skin cancer	14
Hoarseness	12
Mouth ulcer	9
Salivary gland stone	6
Miscellaneous	16

Ca = cancer; post-op = post-operative patient

TABLE II

PATIENT DEMOGRAPHICS

Parameter	<i>n</i>	%
<i>Gender</i>		
Male	84	61
Female	54	39
<i>Age (y)</i>		
21–30	5	3.6
31–40	12	8.7
41–50	18	13
51–60	32	23.2
>60	71	51.4
<i>Marital status</i>		
Single	10	7.2
Married	86	62.3
Cohabiting	6	4.4
Divorced/separated	14	10.2
Widow(er)	22	15.9
<i>Education</i>		
University or above	22	15.9
High school/college (aged 18 y)	28	20.3
High school (aged 16 y)	30	21.7
None	58	42

Y = years

*Use of complementary and alternative medicine*

A total of 69 patients (50 per cent) had previously used complementary or alternative therapies. Thirty-five patients (26 per cent) had used them in the previous year.

Ten out of these 69 patients (14 per cent) had used complementary or alternative medicine for the same reason as that cited for attendance at the head and neck clinic.

Complementary and alternative therapies were conventionally split into herbal and non-herbal categories. Respondents’ usage is shown in Tables III and IV. The most common reasons for individual complementary and alternative medicine usage are documented in the third column of these Tables.

The most popular herbal therapies used were cod liver oil (30/69 patients), primrose oil (16/69),

TABLE III

USE OF HERBAL PRODUCTS BY CAM USERS

Product	<i>n</i>	Reason*
Cod liver oil	30	Joints, general health
Primrose oil	16	PMT, skin
Garlic	14	Cholesterol, circulation
Cranberry	12	UTI, general health
Echinacea	9	Colds, immunity
Aloe vera	8	Skin, general health
St John’s wort	6	Depression
Herbal/vitamin supp	4	Menopause/PMT, skin
<i>Ginkgo biloba</i>	4	General health, colds
Bach flower remedy	4	Anxiety, panic attacks
Senna	3	Constipation
Ginseng	2	General health
Soy	2	Menopause
Chinese herbal medicine	1	Smoking
Nutritional medicine	1	Food allergy
Saw palmetto	1	Prostate

\*Most commonly cited reason for use. CAM = complementary and alternative medicine; PMT = pre-menstrual tension; UTI = urinary tract infection

TABLE IV

USE OF NON-HERBAL THERAPIES BY CAM USERS

Therapy	<i>n</i>	Reason*
Massage	15	Relaxation, pain, stress
Acupuncture	12	Backache, pain
Chiropractor	10	Backache, joints
Homeopathy	10	Joints, bruising, wound healing
Reiki	9	Stress, relaxation, wound healing
Reflexology	9	Pain, stress, health
Osteopathy	8	Backache, neck pain
Aromatherapy	8	Relaxation
Counselling stress therapy	6	Stress
Yoga	2	General health
Hypnotherapy	2	Stress
Meditation	2	Stress
Crystal therapy	2	Not reported
Kinesiology	1	Not reported
Spiritual healing	1	Healing

\*Most commonly cited reason for use. CAM = complementary and alternative medicine

cranberry (12/69), garlic (14/69), echinacea (9/69), aloe vera (8/69) and St John's wort (6/69).

The most popular non-herbal complementary and alternative therapies used were massage (15/69 patients), acupuncture (12/69), chiropractic (10/69), homeopathy (10/69), reflexology (9/69), reiki (9/69) and aromatherapy (8/69).

Forty-one patients (59 per cent) out of the 69 users of complementary and alternative therapies stated that such therapies were effective and that they would recommend them to others.

Information about the complementary and alternative medicine used was obtained most commonly from friends (38 patients; 55 per cent). Twenty patients (29 per cent) had obtained information from the media, and 18 (26 per cent) had obtained information from a healthcare professional.

Forty-five patients (65 per cent) obtained their complementary and alternative therapies from a high street store. Only eight patients (11 per cent) received their complementary and alternative therapy from their general practitioner.

Thirty-four patients (50 per cent) stated that their family physician was unaware of their usage of complementary and alternative medicine.

Statistical analysis of the sample characteristics of the 'ever users' of complementary and alternative medicine was carried out. The results are shown in Table V. The statistically significant patient characteristics which indicated an increased chance of complementary and alternative medicine use were female gender, age greater than 60 years and a university education.

## Discussion

Many people with cancer use complementary therapies in order to help support themselves through the illness and its treatment. A large number of these people find complementary and alternative

medicines helpful in a number of ways, particularly with regards to feelings of positivity about their illness and themselves. This benefit can lead to better coping with the complex and distressing emotions that cancer can provoke.

The current report represents the first British study to assess use of complementary and alternative medicines amongst patients attending a head and neck oncology clinic. We found that 50 per cent of patients attending the head and neck clinic of a regional teaching hospital had used complementary and alternative medicine at some stage, and that 26 per cent had used it in the preceding 12 months. Complementary and alternative medicine users were statistically more likely to be female, younger and better educated. Women were also more likely to consume multiple products. Studies of the general population have found that older age groups and those with higher income are more likely to use complementary and alternative medicine therapies.<sup>1</sup> However, a survey of 1523 patients attending a general practice in north-east Scotland found a decreasing trend of complementary and alternative medicine use with increasing age, although female sex, higher income and higher level of education were associated with current and lifetime (i.e. 'ever') complementary and alternative medicine use.<sup>6,7</sup>

There are methodological factors to consider when interpreting our study results. Firstly, our sample comprised a series of consecutive patients attending a major teaching hospital out-patient clinic serving the Grampian region (population 500 000). Only one Scottish region was included; therefore, extending the survey to include other surgical centres would have improved the generalisability of findings. We broadly categorised therapies as herbal or non-herbal, although some herbal products can be considered homeopathic if used within diluted preparations. We asked about complementary and alternative medicine usage in the previous year, but did not assess usage in the weeks before head and neck clinic attendance. However, our category of 'ever' usage of complementary and alternative medicine was comparable with other studies' assessment of lifetime use.<sup>6,8</sup> The questionnaire was self-administered; therefore, only limited information on patients' reasons for using particularly therapies was obtained. While an interview technique would have allowed further exploration of beliefs regarding efficacy and of patient's reasons for consumption, such a methodology is impractical for large-scale epidemiological surveys.

Sampling differences and variation in measurement methods will account for some of the observed variation in rates of complementary and alternative medicine utility across different populations.

Comparing complementary and alternative medicine ever-use in our sample with that of the general population reveals that complementary and alternative therapy usage rates in our population appeared to be markedly lower (50 per cent) than estimates from patients attending general practice (71 per cent).<sup>6</sup> This was surprising, but may be partly explained by the fact that many patients

TABLE V  
PATIENTS' CHARACTERISTICS BY CAM USE

Characteristic	'Ever users'*	'Never users' <sup>†</sup>	Total <sup>‡</sup>	<i>p</i>
<i>Sex (n)</i>				
Female	39	15	54	<0.001
Male	28	56	84	
<i>Age (y)</i>				
≤40	11	6	17	0.035
41–60	29	21	50	
>60	27	44	71	
<i>Marital status (n)</i>				
Single	3	7	10	0.48
Married/cohabiting	46	46	92	
Divorced/sep/widowed	18	18	36	
<i>Education (n)</i>				
University	16	6	22	<0.001
School/college	35	23	58	
None	16	42	58	

\**n* = 67 (48.6%); <sup>†</sup>*n* = 71 (51.4%); <sup>‡</sup>*n* = 138. CAM = complementary and alternative medicine; y = years; sep = separated

attending the oncology clinic were of lower socio-economic status and therefore statistically less likely to use complementary and alternative medicine.<sup>1</sup>

We found that herbal medicines were most commonly used for general health care and disease prevention. Other remedies included cranberry to treat and prevent urinary tract infections, primrose oil for post-menopausal symptoms, aloe vera for healthy skin, echinacea for upper respiratory tract infections, ginseng and herbal vitamin supplements to boost energy, and St John's wort for depression.

The increase in use of herbal complementary and alternative medicines has important implications for surgery. The risks of herbal medication use and their interaction with synthetic drugs have been well reported, as has been the importance of detailed history-taking and advice to discontinue certain products in order to prevent adverse reactions.<sup>8–10</sup> Some herbal preparations, particularly garlic, ginseng, ginkgo and St John's wort (*Hypericum perforatum*), are known to interact with synthetic drugs, such as digoxin and warfarin.<sup>9</sup> Systematic reviews of the published evidence on the safety of herbal products have reported the serious clinical consequences arising from direct, pharmacodynamic and pharmacokinetic effects.<sup>9,10</sup> Anti-coagulation effects are the most widely reported; excessive use of garlic, *Ginkgo biloba* and ginseng can alter bleeding time and increase the risk of intra-operative haemorrhage. *Ginkgo biloba*, kava and echinacea can interact with barbiturates, used freely in anaesthetics, and may cause increased sedation. Long-term use of ephedra and ginseng can cause hypertension.<sup>8</sup>

Given that certain complementary and alternative therapies can interact with conventional medications, it is important that healthcare providers know of their patients' use of such therapies. Only 50 per cent of our sample had informed their general practitioner of their complementary and alternative medicine use. Patients often consider alternative and conventional medicines as separate and distinct remedies, and fail to recognise that non-conventional therapies may have adverse effects. Many products are believed to be 'natural' and therefore inherently safe and less toxic than conventional medication.<sup>4</sup> Doctors inevitably enquire about prescribed medicines taken by patients, but asking about complementary and alternative medicine usage is extremely uncommon. Patients very uncommonly state complementary and alternative medicine usage freely, and some may even be embarrassed to declare their use of non-mainstream therapies.

When testing the questionnaire for our pilot study, we initially asked 'do you use complementary or alternative medicine?', whereupon the majority of patients answered in the negative. When the same patients were then shown a list of such products which the authors had compiled, they answered 'yes', and were unaware that certain products were classified as complementary and alternative medicine.

Sixty per cent of respondents who used complementary and alternative medicines thought them effective, and a similar figure stated that they

would recommend use of such therapies to others. Most respondents had learned about complementary and alternative medicine from family and friends, with only a small percentage seeking information from healthcare professionals (26 per cent). The key issue here is safety, efficacy and interaction with conventional medication. Although the Internet is an extremely popular means of obtaining health information, being low cost, convenient and continually accessible, the health information obtained is often of poor quality. We believe that patients should report complementary and alternative medicine use to general practitioners and hospital staff; however, there is evidence that healthcare providers lack knowledge of the effects and associated risks of herbal products. A Canadian study assessed knowledge of nine commonly used herbal remedies amongst 28 anaesthetists; they found that only one third of questions were correctly answered, and that most respondents admitted to guessing at the correct answer.<sup>7</sup>

Recent analysis of Scottish prescribing data for 2003–2004, covering 1.9 million patients from 323 general practices, found that 60 per cent of Scottish surgeries prescribed homeopathic or herbal remedies. This analysis also revealed that 4 per cent of patients were being prescribed herbal remedies along with conventional medicines that were well known to interact with herbal treatment.<sup>7</sup>

- **In the UK, there are 50 000 practitioners of complementary and alternative medicine**
- **The aim of this study was to explore the use of this practice in patients attending a head and neck oncology clinic in Aberdeen, Scotland**
- **Questionnaires were provided to 200 patients over an eight-week period. The questionnaire addressed demographic parameters, a list of 48 herbal preparations and alternative therapies, and respondents' reasons for use and opinions on efficacy**
- **All medical practitioners should be aware of increasing complementary and alternative medicine usage by the population, and should be able to counsel patients appropriately**

It is essential that both patients and healthcare professionals have access to accurate and reliable information. In the United States, this issue has been addressed by the establishment of the National Centre for Complementary and Alternative Medicine.<sup>1</sup>

There is very little legislation to restrict practice of complementary and alternative medicine in the United Kingdom, despite the longstanding climate of patient protection which currently pervades every aspect of the National Health Service. Studies have highlighted the need for regulation in order to ensure quality of care and mechanisms to protect against potentially dangerous interactions.<sup>11</sup>

This study highlights the need for an increased awareness by otolaryngologists, and indeed all healthcare practitioners, of the increasing role of complementary and alternative medicine. We all have a responsibility to learn more about complementary and alternative medicine and its potential interactions. There should be more thorough documentation of complementary and alternative medicine usage by health professionals at all levels, and patients should have the opportunity both to inform us of such usage and to seek information when required.

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Address for correspondence:  
Mr J R Newton,  
Department of Otolaryngology,  
Aberdeen Royal Infirmary,  
Foresterhill,  
Aberdeen AB25 2ZN, Scotland, UK.

E-mail: Jnewton59@hotmail.com

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