

# Discrepant Views of Korean Medical Oncologists and Cancer Patients on Complementary and Alternative Medicine

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**Purpose:** This study was designed to evaluate the communication gap between Korean medical oncologists and cancer patients on complementary and alternative medicine (CAM).

**Materials and Methods:** Cross sectional studies utilized the responses of 59 medical oncologists and 211 patients. To understand the communication gap, perceived reasons and nondisclosure of CAM use, reactions of physicians to disclosure, and expectations for CAM were analyzed. Data were compared with use of the chi-squared test.

**Results:** Both medical oncologists and patients were in accord that CAM use would provide the patients with a feeling of hope. The medical oncologists believed more often than patients to attribute CAM use for control over medical care decisions, for the treatment of an incurable disease or as a nontoxic approach ( $p < 0.05$ ). Regarding reasons for nondisclosure, medical oncologists were more

likely to think that physicians would not understand the use of CAM, discontinue treatment or disapprove of the use of CAM ( $p < 0.0001$ ). Patients attributed nondisclosure mainly to the lack of questioning about CAM. Medical oncologists were more likely to warn of the risks with CAM use and less likely to encourage the use of CAM than perceived by patients ( $p = 0.01$ ). Patients expected that CAM could cure disease, extend survival, relieve symptoms and improve the immune system or quality of life more often than medical oncologists ( $p < 0.05$ ).

**Conclusion:** Given the discrepant views of medical oncologists and patients on the use of CAM, medical oncologists should be aware of the discrepancies and attempt to resolve any differences. (*Cancer Res Treat. 2008;40:87-92*)

**Key Words:** Medical oncologists, Alternative medicine, Attitude

## INTRODUCTION

Cancer patients desperately wish to cure or control the disease while minimizing suffering. With the development of new chemotherapeutic agents and the accumulation of knowledge for anti cancer treatment, the best chances for cure and to maintain a high quality of life are becoming a reality. However, despite surprising progress, the toxic effects of anticancer treatments and the relapse/progression of a tumor are still present. Cancer patients encounter difficulties to achieve a cure and the patients can become dissatisfied with conventional anticancer treatments. Considering this situation, it follows that the use of complementary and alternative medicine (CAM), which is known to prevent or treat illness or to promote health

and well being from common beliefs, is popular among cancer patients along with standard anticancer treatments.

Generally, CAM is not presently considered as a part of conventional medicine, a group of diverse medical and health care systems practices, and products. The National Center for Complementary and Alternative Medicine (NCCAM) has grouped CAM into five domains. These domains include alternative medical systems such as traditional Oriental medicine and homeopathy; mind-body interventions, including meditation, imagery and relaxation; biologically based treatments, such as melatonin, herbals, mushrooms and high-dose vitamins; manipulative and body-based methods, such as yoga and massage; energy therapies, including QiGong and therapeutic touch (1). However, boundaries within CAM and between the CAM domains are not always well defined or fixed.

The popularity of CAM use among cancer patients has been reported in many countries. According to the majority of studies on the use of CAM in the U.S.A., between 25~84% of American cancer patients have used CAM therapies at some point after diagnosis (2-7). A systemic review, including 26 worldwide surveys in 1998, reported that an average of 31% (7~64%) of adult cancer patients used CAM (8). According to a recent Japanese national survey, 44.6% of cancer patients

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used a CAM product (9). Similarly, it has been reported that approximately 50~80% of Korean cancer patients used CAM (10,11). The wide variation of frequency of CAM use can be explained by the vague definition of CAM, differences of geographic location and the type of cancer or level of progression of cancer (12). Most of these studies observed a high prevalence of CAM use by cancer patients without sufficient information and consultation with a physician. These findings suggest that oncologists should not ignore the CAM products used by patients because of a lack of proven efficacy and safety.

How do oncologists view CAM use by patients? If oncologists actually ignore CAM use due to a lack of scientific evidence of efficacy and safety, while cancer patients use CAM at the same time, a discrepant view about CAM might be a great barrier to the relationship between the oncologist and cancer patient, and could ultimately affect treatment decisions and adherence.

Studies about discrepant views of CAM use between cancer patients and oncology professionals have been performed in Japan, Norway, Brazil and the U.S.A (13-17). All of these studies showed that oncology professionals in the different countries had negative perceptions of CAM use due to a lack of scientific proof about its efficacy and concerns about drug interactions with the anticancer treatments. Consequently, solving the communication gap about CAM use has been repeatedly emphasized.

In Korea, the views of oncologists about CAM use have not been surveyed directly. Simply, oncologists have reported views in comments or editorials in various medical journals or have discussed the use of CAM with colleagues and have described the potential harmful effects of CAM to patients. Here, we need to consider two unique situations that Korean cancer patients face. First, the Oriental medical (OM) doctor is legally protected in Korea. As Korea is the only nation where OM is a legal practice, Korean cancer patients seem to have a greater opportunity to undertake CAM as compared with patients in other countries. Second, internet access is widely available in Korea. Along offering the development of online health information, CAM interest has been rapidly growing via specific internet marketing among Korean cancer patients.

The present study was designed to understand better how medical oncologists and cancer patients differently view CAM use. We analyzed 1) the reasons for CAM use, 2) reasons for nondisclosure of CAM use, 3) the response of physicians to patients who disclose CAM use and 4) the anticipated benefits of CAM use.

## MATERIALS AND METHODS

### 1) Subjects

This study was a two cross-sectional study between cancer patients and medical oncologists. Views of CAM were evaluated from responses of outpatients or inpatients in four hospitals between September 2006 and July 2007. An eligible patient who completed the survey was 18 years of age or older, signed the written agreement form and physically and emotionally was able to complete the survey. The survey was randomly assigned to cancer patients who visited four hospitals

for the duration of the study. Medical oncologists from the four hospitals who were members of a palliative care committee of Korean Society of Clinical Oncology (KCSG) participated in this study, and were responsible to gather the surveys of the patients.

The survey was sent via e-mail to the medical oncologists who were members of the KCSG. The medical oncologists passively consented to participation in the survey by replying to the e-mail. The institutional review board of the KCSG approved the study.

### 2) Surveys

The survey was originally designed for a study about discrepant views of cancer patients and oncologists at the M.D. Anderson Cancer Center (17). Upon agreement, we modified the survey reflecting the situation particular to a Korean population. The survey for the cancer patients and the survey for the medical oncologist were consistent with the demographics, knowledge and attitudes about the use of CAM.

CAM was defined for diverse medical and healthcare practices and products that are not presently considered a part of conventional medicine to both the cancer patients and medical oncologists. Cancer patients were supposed to check all uses of CAM among five domains of CAM according to the NCCAM criteria.

The views of cancer patients and medical oncologists were compared by the use of four specific questions that were part of each survey. These items differed only in terms of subjects (medical oncologists or cancer patients). The first question listed reasons for CAM use. Patients were asked reasons for using CAM whereas medical oncologists were asked about opinions of why cancer patients use CAM. The answers were supposed to be selected from the following responses: 1) to feel hopeful, 2) to have more control over medical care decisions, 3) that CAM therapies are nontoxic and 4) the cancer is incurable. The second question addressed reasons for nondisclosure of CAM use to physicians. The medical oncologists were asked why patients did not disclose CAM use to physicians and the patients were asked why they did not disclose CAM use to physicians. The answers were supposed to be selected from the following responses: 1) physicians never ask about other therapies, 2) physicians would not understand the use of CAM, 3) physicians would disapprove of the use of CAM, 4) physicians would not continue as a care provider, 5) patients do not think it is important for the physicians to know about CAM use, and 6) patients are unsure if CAM therapies are beneficial. The third question addressed issues on how physicians react to patients who disclose that they are using CAM. Patients were asked how physicians reacted when CAM use was disclosed whereas medical oncologists were asked how they reacted to patient disclosure of CAM use. The answers were selected from the following: 1) to encourage the patient to continue to use CAM, 2) to encourage patients to stop using CAM, 3) to warn patients about the risks of CAM use and 4) to remain neutral. The final question was related to the expectations of CAM therapies. Both patients and medical oncologists were questioned about opinions of the expected benefits of CAM. The answers were supposed to be selected from the following responses: 1) to provide a cure, 2) to help

patients live longer, 3) to relieve symptoms, 4) to improve the immune system and 5) to improve quality of life. Except for the question about the response of the medical oncologists to disclosure of CAM use, multiple answers were allowed to be chosen.

### 3) Statistical analysis

Questions about reasons for CAM use and the expected benefit of CAM use were designed to allow the medical oncologists to use a 5-point response format and the patients to use a dichotomous (yes/no) response format. The 5-point response format was dichotomized in order to be able to compare the responses; strongly agree and agree were grouped as yes while a neutral response, disagree, and strongly disagree were grouped as a no. Questions about reasons for nondisclosure of CAM use and the reaction to CAM use were designed to check a specific answer, and not the yes/no or 5-point format.

The chi-squared test with Fisher's exact test was used. Statistical analyses were performed with the software package SAS 9.1 (SAS Inc., Cary, NC). If views differed using an alpha of 0.05 as determined by a two sided test, the statistical significance was regarded as present. Data were analyzed by the Yonsei University Medical Statistics Department.

## RESULTS

### 1) Descriptive information

The cancer patients were recruited from one veterans hospital

**Table 1.** Reasons for CAM use: the perception of the medical oncologists versus the response of the patients

Reasons for use	Medical oncologists (N=59)	Patients (N=111)	p-value
	%yes*	%yes	
To feel hopeful	73%	62%	0.16
To have more control over medical decisions	17%	6%	0.03
Nontoxic	85%	24%	<0.001
Incurable disease	81%	25%	<0.001

\*Yes: strong agree and agree. No: neutral response, disagree and, strongly disagree.

and three academic hospitals. A total of 211 patients (of 251 subjects) were identified as CAM users. A survey of four questions were obtained from these patients. The response rate for the questions about reasons for CAM use, the reasons for nondisclosure of CAM use, the response of physicians to patients who disclose CAM use and the anticipated benefits of CAM use were 52% (111/211), 38% (81/211), 52% (111/211) and 55% (117/211), respectively.

The average age of CAM users was 60 years old, with an age range of 25-85 years. A majority of CAM users (74%, 157/211) were male. For education level, 61% (128/211) of the patients were high school graduates or had less than a high school education and 21% (45/211) of the patients had completed college or postgraduate training. Among 176 patients who completed the question about disease status, 41 (23%) patients responded they were disease free. The stomach (19%; and 39/211) was the most frequent primary cancer site followed by the lung (18%) and a colorectal site (14%). The majority of patients had been treated with chemotherapy (73%), followed by surgery (53%) and radiotherapy (23%).

The response rate from the medical oncologists was 27 % (59/220). All of the medical oncologists who completed the survey had worked in the academic hospitals, and 63% (37/59) of the physicians were male. The mean time of clinical practice was nine years (range, 1 to 26 years).

### 2) Reasons for CAM use

Medical oncologists and patients perceived that CAM was used, as the patients would feel hopeful that CAM would affect disease stabilization (Table 1). The medical oncologists provided positive responses more often than the patients that CAM was used for control over medical care decisions, as a nontoxic modality and for the treatment of an incurable disease ( $p < 0.0500$ ). About one-quarter of patients reported that they used CAM as a nontoxic modality or for the treatment of an incurable disease; however, more than 80% of the medical oncologists concurred with this response ( $p < 0.001$ ).

### 3) Reasons for nondisclosure of CAM use

Medical oncologists and patients responded differently to most of the listed answers (Table 2). A majority (86%) of medical oncologists guessed that the most probable reason for nondisclosure from CAM users was that physicians would discourage or disapprove of CAM use. Cancer patients responded that the most frequent reason of nondisclosure to

**Table 2.** Reasons for nondisclosure of CAM use: the perception of the medical oncologists versus the response of the patients

Reasons nondisclosure	Medical oncologists (N=59)	Patients (N=111)	p-value
	%yes	%yes	
Physicians never ask about CAM	32%	48%	0.05
Physicians would not understand	59%	21%	<0.0001
Physicians would discourage or disapprove	86%	27%	<0.0001
Not important for physicians to know	17%	11%	0.27
Physicians will not continue as provider	41%	5%	<0.0001
Patients unsure of benefit	2%	17%	<0.002

**Table 3.** Responses of the medical oncologists for disclosure of CAM use: the response of the medical oncologists versus the response of the patients

Reaction of physicians to disclosures	Medical oncologists (N=59)	Patients (N=81)	p-value
	%yes	%yes	
Physicians encourage patients to continue using CAM	0%	11%	0.01
Physicians encourage patients to stop using CAM	22%	25%	0.71
Physicians warn patients of CAM risks	47%	30%	0.03
Physicians remain neutral about patients use of CAM	32%	36%	0.66

**Table 4.** Expectations for CAM use: the perception of the medical oncologists versus the response of the patients

Perceived benefits	Medical oncologists (N=59)	Patients (N=117)	p-value
	%yes*	%yes	
Cure disease	0%	45%	<0.001
Extend survival	2%	26%	<0.001
Relieve symptoms/nontoxic	20%	26%	<0.001
Improve immune system	7%	39%	<0.001
Improve quality of life	8%	21%	0.04

\*Yes: strong agree and agree. No: neutral response, disagree and strongly disagree.

physicians was that the physicians never asked about CAM use. The patients attributed the reason for nondisclosure of CAM use to an uncertainty of the benefits of CAM uses themselves rather than to the opinions of the medical oncologists ( $p < 0.002$ ). As compared with the patients, the medical oncologists seemed to assume that the reasons for nondisclosure from the patients were due to fear of the patients that physicians would not understand CAM use or that the physicians would not continue treatment ( $p < 0.05$ ).

#### 4) Reactions of the physicians to provide disclosure

Medical oncologists and patients responded differently to the two items (Table 3). While none of medical oncologists responded that they encouraged patients to continue using CAM, 11% of patients recalled they had received a recommendation to continue using CAM. In addition, medical oncologists were more likely to warn of the CAM risks than patients were to report of CAM risks. Both the medical oncologists and the patients reported similarly about a recommendation to stop using CAM and of a neutral response of physicians to CAM use.

#### 5) Expected benefits of CAM use

Medical oncologists showed very different views from patients, with statistical significance (Table 4). None of medical oncologists thought that the use of CAM could cure cancer. In contrast, nearly half of the cancer patients expected disease cure from CAM use ( $p < 0.001$ ). Medical oncologists mostly did not expect a survival extension or an improvement of the immune system from the use of CAM. A significantly more positive

attitude for the benefits of CAM use was attributed to the patients than to the medical oncologists. Of the cancer patients, 39% were hopeful of improvement of the immune system by CAM use and over 20% of the patients showed expectations for survival extension or improvement of symptoms and quality of life.

## DISCUSSION

This is the first study to evaluate how Korean medical oncologists feel about CAM use by patients. Issues including why patients use CAM, why they do not disclose CAM use to physicians, how physicians respond to patients who disclose they are using CAM, and what are the expected benefits of CAM were analyzed. This study showed that most Korean medical oncologists responded differently from cancer patient about CAM use.

### 1) Reasons for CAM use

Even though the current study addressed reasons for CAM use like a feeling of hope, having more control over the disease, lack of toxicity and having an incurable disease, many cancer patients have shown interest in CAM for a variety of reasons. These reasons include dissatisfaction with mainstream medicine and rapidly growing internet CAM marketing (18,19,20). The maintenance of hope was the main reason disclosed by cancer patients for using CAM, and the Korean medical oncologists assumed this was the main reason for CAM use by patients. The pattern for reasons about CAM use was similar to reasons reported in a previous study in the U.S.A (17). However, few Korean cancer patients (6%) attribute the reason for CAM use to have more control over medical decisions. This difference might be based on the Korean cultural background. Still, many Korean cancer patients tend to depend on the medical decisions of their physicians. Whether the question about CAM use is toxic or nontoxic is controversial. As CAM covers a broad range of treatment modalities, it is not easy to judge. Simply, medical oncologists included in this study might guess that CAM is nontoxic, as compared to the known toxic anticancer treatments.

### 2) Reasons for nondisclosure of CAM use

Earlier studies have described the reasons for not discussing CAM use by cancer patients with physicians (13-17). The major barriers to communication for patients were the indifference of the physician, opposition to the use of CAM,

an emphasis by the physician on scientific evidence and anticipation of the patient to a negative response from the physicians.

Although some patients expressed the above reasons, the most common cause of nondisclosure of the cancer patients in our study was that physicians never asked about CAM. The current very short clinical encounter time of patients in Korea is likely to lead medical oncologists and other physicians to spend limited time to communicate about CAM use. American cancer patients also responded with a similar pattern as we were able to ascertain. However, the American patients addressed more frequently the uncertainty of the benefits of CAM among themselves. In contrast, Korean cancer patients seemed to believe more in the benefits of CAM as compared to the American cancer patients.

### 3) Reaction of the physicians to disclosure of CAM use

We found similar findings as with previous studies that were conducted about the reaction of physicians to disclosure about CAM use (17, 21). According to these studies, patients were more likely to report that physicians encouraged them to use CAM while physicians were more likely to report warning of the risks of CAM use. In our study, nearly half of medical oncologists answered that they warned patients about the risks associated with CAM use when patients asked them about CAM use. According to patients, a neutral response by the physician about CAM use was the most frequent encountered response (36%). In contrast to a report by Richardson *et al.* that reported a higher response rate to the encouragement of CAM use (14.6%), the Korean medical oncologists typically did not encourage CAM use. This response might reflect the skeptical and negative conception of Korean medical oncologists about CAM. However, it should be stated that patients could recall the reaction of every physician during treatment, and not that of only the medical oncologists. Therefore, the response about the reaction of physicians to disclosure of CAM use from cancer patients cannot be compared directly to the views of the medical oncologists.

### 4) Expectations

It is well known that CAM lacks scientific evidence. This point would be the most worrying aspect for medical oncologists who were trained in a modern, scientific, and evidence-based manner. In this study, we found that most Korean medical oncologists think CAM is not useful and is ineffective. This finding is consistent with studies from other countries (13-17). However, the positive response rate of a perceived benefit was quite low as compared to a similar study that was performed by American oncologists. In two studies, although it was impossible to expect disease cure from the use of CAM, over 50% of the American oncologists thought the CAM could improve quality of life, as compared to only 8% of responders in this study. In our study, this difference might be explained for the following reasons. First, the attitude for CAM may be different among different medical specialties. Hyodo *et al.* observed that primary care physicians or surgical oncologists tended to accept the use of CAM more frequently than medical oncologists (14). As we only intended to assess the view of medical oncologists, there should be a difference from other

studies. Second, the Korean medical oncologists should be more skeptical about the use of CAM use as previously mentioned. The oncologists might have often experienced patients that had drug interactions between herbal products or other CAM products and anticancer drugs. We found that some medical oncologists used to ask to patients whether they ever used herbs when the liver function of the patients deteriorated. Moreover, the attitude to OM, which is one aspect of CAM, was not friendly. Though OM is gaining popularity in other nations, negative perception could be relatively high for Korean medical oncologists whenever they encounter possible harm by the use of commercial herbal products or other products. In fact, Kang *et al.* observed that Western medicine-trained doctors (WMDs) held more unfavorable attitudes toward CAM than views held by Oriental medicine-trained doctors (OMDs) (22). As we do not know what types of medical specialties were involved in that study, direct comparison between medical oncologists and OMDs related to attitudes for CAM was not possible. This study suggested that knowledge of CAM was an important factor for CAM acceptance. It appears that unwillingness of medical oncologists to learn CAM could be a meaningful factor to such negative attitudes in our study.

From the aspect of the view of the patient, the cure of disease by CAM received the highest response (45%). This is beyond our expectation. The patients did not relatively expect that CAM would improve quality of life or improve the immune system, as compared to the American cancer patients. Though disease cure is the utmost goal, cure from CAM use was considered as unrealistic to the majority of medical oncologists, as seen from our results. The reasons for these findings may be the following. It is possible that Korean cancer patients would not share accurate information regarding disease status from their physician or families, so they strongly hope that CAM works for a cure for even an incurable disease. In addition, the idea of improvement of quality of life is an unfamiliar or an unrecognized concept for many Korean cancer patients. In these situations, an effort to obtain scientific evidence of CAM use could be emphasized. Without scientific evidence, a desperate cancer patient may pay money and spend time to grasp a false hope.

### 5) Limitations

There are some limitations in this study. First, the results are not representative views of all Korean cancer patients and medical oncologists. As we only recruited patients and medical oncologists who voluntarily completed the questionnaire, unanswered questions were present frequently in the survey. Moreover, the variation of response rate across institutions is present due to the random selection of cancer patients by the medical oncologists who were in charge in our study. In addition, the response rate of the medical oncologists was low as compared to rates reported in other studies. Considering the busy schedules with little spare time of most of the medical oncologists, the low response rate is understandable. Second, we used a survey that was designed and validated at the MD Anderson Cancer Center in the United States. From use of that survey, the reasons why the response format was designed to differ between cancer patients and medical oncologists regarding the items about reasons and expectation for CAM use

is not definite. Although a revision to reflect the situation in Korea was performed after a personal discussion with other oncologists, a more appropriate questionnaire is needed for the Korean medical practice background and health care system.

However, this study has several strengths. First, it is the first study to demonstrate how medical oncologists think about CAM use and to compare the views between cancer patients and medical oncologists by the use of a systemic analysis. Second, our findings suggest that improvement is needed for communication about CAM given the amount of misinformation available and the presence of some websites that contain harmful material such as discouraging adherence to the advice of the clinician or the use of conventional medicine. This is not simple task, but in order to provide better-informed care to cancer patients, knowledge about CAM modalities should be acquired as a part of the medical curriculum and scientific evidence needs to be provided about CAM use.

## CONCLUSION

The current study suggests that Korean medical oncologists should be aware and should familiarize themselves with CAM use to advise patients appropriately. To resolve any discrepant views, the medical oncologists should be able to discuss the possible benefits and potential risks of CAM with open communication.

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