

The Evaluation on The Pattern of Complementary Alternative Treatment Used by Cancer Patients

Mochamad Djunaedi¹, Wahyu Utami¹ and Anila Impian Sukorini¹

¹Community Department Faculty of Pharmacy Universitas Airlangga, Jl. Darmawangsa Dalam, Surabaya, Indonesia

Keywords: Complementary Alternative Medicine, Cancer, Health Professionals

Abstract: **Objective:** Complementary alternative treatment used among cancer patients is expected to support the therapeutic goal achievement. This study aims to evaluate the attitudes of cancer patients in an attempting to the treatment of cancer using the complementary alternative medicines (CAM) and to identify the CAM used by cancer patients. **Methods:** A cross-sectional study was conducted in 2016 using a “semi-structured questionnaire” in 100 respondents. Only 75 respondents were eligible and met the inclusion criteria. **Results:** The recommendations for using the CAM we found from non health professionals (85%). The used of CAM without prior assessments was 77%. Patients used CAM when the condition of the cancer had severe (87%). **Conclusion:** Integration of health personnel, including pharmacists to assist the team in using herbs, supplements or traditional medicine has not been done optimally.

1 INTRODUCTION

Cancer has high morbidity and mortality. A total of 6.25 million cancer patients are from developing countries, including Indonesia. There are about 6% of the population of Indonesia has cancer. Conventional treatment of cancer includes surgery, radio therapy and chemotherapy (chemo). However, surgical therapy may be ineffective when cancer cells are spread (metastasis), the process of radiation is also non-selective, while chemotherapy is still often found to cause side effects in normal cells [1].

Less consumption of fibrous foods, less physical activity or immobility, smoking, alcohol consumption is an unhealthy behaviour that has cancer risk factors. Exposure to carcinogens (ultraviolet/UV and ionizing radiation); benzo(α)pyrene, formalin and aflatoxin in foods and asbestos; viral, bacterial and parasitic infections are also important risk factors. Interventions of cancer risk factors should be aimed at preventing the growth and further development of cancer [2].

In CAM, there are herbal ingredients, supplements or traditional medicine, single dose, extracted or combination of natural ingredients that have antineoplastic effect, such as:

a. All parts of the plant Rice Rodent (*Typhonium flagelliforme* Lodd.) Can stimulate

apoptosis, anticancer activity (breaking the DNA of cancer cells) and as an antibacterial.

b. Tapak dara (*Vinca rosea*) can inhibit cell proliferation in breast cancer.

c. Sirsat (*Annona muricata*, L.) can kill cancer cells 10,000x stronger than Adriamycin.

d. White Turmeric (*Kaempferia rotunda*, L.)

e. Sambilotto (*Andrographis paniculata*, (Burm.) F, Nees).

f. Ceplukan (*Physalis minima*, L).

g. Mangosteen rind extract (*Garcinia mangostana*, L) is a source of antioxidants (which can serve as antiproliferative and apoptotic).

h. Flavonoid and polyphenol contained in Sarang Burung functioning as antioxidants

The patient's health seeking behaviour still relies on the direction of health practitioners. However, they still have behaviours associated with the customary treatment adopted and ancient habits [3]. The elderly in Palestine who suffer from cancer use the decoction of the Arum palaestum plant because of its recommendation by members of his family [4]. The CAM use in patients undergoing palliative therapy is not influenced by the patient's demographic characteristic [5].

Patients often seek advanced information on the medical development and recurrence of cancer, while protocols direction, to detect the signs of side

effects, insurance and healthy lifestyle is neglected [6].

The rate of herbal use among cancer patients was increased sharply, despite the lack of scientific data that supporting for the use of CAM. They used CAM for to increase their stamina, memory and fitness of the body or lowering blood pressure, unfortunately the adverse drug effects might arise, such as: stomach disorder or redness of the eyes. Another reason is due to their self-treatment to counteract dissatisfaction in undergoing conventional therapy and economic considerations [7]. Finding information through social media networks is less effective for the elderly rather than community based media [8]. In Thailand, in addition to self-treatment, there are also treatments performed by herbalists and religious leaders who prescribe traditional herbs to overcome the complaints of patients such as: pain, gastric discomfort, insomnia and fatigue [9].

The screening to detect the early onset of cancer can be done in the community health care facility. Especially in East Java, the most common screening is to detect breast cancer and cervical cancer. Trained personnel consisting of Obstetrician Gynecologists, Oncology Surgeons, general practitioners, and midwives have been deployed [10].

There are important issues that emphasize performing this research. The lack of understanding about the disease being suffered, such as: symptoms (sign and symptom) and treatment, additionally improper indication to use the CAM that may affect the condition of the patient's health. Most patients seek for alternative treatments when the cancer has spread, even the CAM used does not result in any improvement. The therapeutic relationship between CAM users and health care providers in an attempt to improve the patient's condition is still irrational. The lack of publications that support on the empowerment of health workers related to the use of CAM by cancer patients. It also adds that the limitations of the law that implements therapy using traditional medicine for East Java are only provided to some trained doctors. While permits the practice of traditional medicine by doctors and colleagues of professional organizations has never been realized and still depends on the policies of each region. Standardized the competence of health professionals who are experts on treatment with herbal has not been established [11].

This research aims to evaluate the attitudes of cancer patients in an attempting to the treatment of cancer using herbs, supplements and traditional medicine. To identify the herbs, supplements and traditional remedies used by cancer patients.

2 OBJECTIVES

To evaluate the attitudes of cancer patients for attempting the treatment of cancer using herbs, supplements and traditional medicine. This study also aims to identify the herbs, supplements and traditional remedies used by patients.

3 METHOD

A cross-sectional study was selected to carry out this research. This study emphasized to explore data surveys from cancer patient. The data found were the information about the benefits or disadvantages of using herbs, supplements or traditional medicine as a complement to alternative treatments of cancer patients. The study was conducted in 2016, from July to November.

3.1 Measured Variable

- Patient's report on herbs, supplements and traditional drugs used was collected.
- Patient's report on their knowledge of the illness suffered, indications and confirmation of the use of herbs, supplements or traditional medicine to health care professional.
- Herbal, supplement or traditional medicine identities: origin and dosage form

3.2 Population and Sampling Technique

The study population were cancer patient currently using herbal, supplement or traditional medicine who joined in any palliative-sharing group for taking herbal, supplement or traditional as a CAM. Patients with cancer were recruited from groups or communities of cancer patients in Surabaya. The group was established primary due to similar communication topic on herbal product, supplement or traditional medicine they were taking. A convenient sampling technique was used. Patients aged > 18 years old, confirmed diagnosed with cancer by health professionals who consumed

herbal, supplement or traditional medicine were included. Patients with AIDS were excluded.

3.3 Instrument

The instrument used for data collection is "semi-structured questionnaires". This instrument was applied to investigate the prevalence of herbal use among cancer patients. Details of this instrument explored information about patient demographics, the reasons using alternative, complementary treatments and type of preparations used as CAM.

4 RESULT AND DISCUSSION

4.1 Demographic Profile of Cancer Patients Using the CAM

Age: The average age of patients is (45 ± 11) years old. Cancer patients younger than 40 years old were 31%; increased sharply for those aged between 40-55 years old to 60%, while those over the age of 55 years old were 9%. The Bulletin of Data and Information Window (2015) had committed that women aged between 30-50 years old become the main target for the next five years in cancer prevention efforts. Therefore, this finding should suggest the health providers in Primary Health care center as basic information for them performing monitoring and evaluation of cancer population.

The level of education pursued was Bachelor (56%), Junior High School (20%), Postgraduate 11%, Diploma 9% and SD 4%. Those who have married 73%, widows / widowers 15% and 12% single.

All Patients (100%) stated that they were suffering from cancer. They are able to know because: getting information about the signs of cancer growth from other cancer patients (2%); knowing that a sign on the body part is malignancy (6%) and confirmed by health professionals (92%).

Table 1: Type of cancer suffered by patients

No	Type of malignancy	Percentage
1	breast cancer	41
2	uterus Cancer	13
3	Craniofagioma	9
4	Hodgkin's lymphoma	9
5	colon / rectum cancer	7
6	Malignant timomas	5
7	Muscinous carcinoma	4
8	Muscle uterus	4
9	FNAC	4

10	Mouth cancer	1
11	Lymph node cancer	1
12	Tumor ductus lactiferus	1
13	lung cancer	1
Total		100

The table shows that of 13 types of cancer, breast cancer ranked highest.

Historically, after the patient knew the cancer had been suffered, some of them decided to change their mind to:

- regulate the lifestyle. No information was found that their lifestyles were changed except for the consumed diet (19%).
- try using herbs, supplements or traditional medicine (35%).
- using alternative treatment therapies (11%)
- follow the directions of physicians and other health personnel (81%).
- ignoring her health condition (1%)

The dosage forms found to be used by patients vary widely, ranging from simple traditional ingredients to processed or modern packaging such as: capsules, pills, drops etc. and the extract and fitomedicine as well.

Table 2: Preparation of herbal, supplements or traditional medicines used by patients

No	Type of preparation	%
1.	Simple herbal ingredients (liquid part of concoction)	20 %
2.	Modern preparations such as: capsules, pills, sachets/powders, etc.	71%
3.	Phytomedicine preparation	9%

Some cancer patients consume traditional herbs, supplements or traditional medicine in single or multi dose, but most patients (65%) use more than one dose. The preparation is used for treatment by the patient after knowing that the cancer has been developed (87%), which means not for prevention purposes.

The types of herbs, supplements or traditional medicine used by peasant cancer originated from Surabaya and the cities in East Java province is 76%, other provincial cities, such as Jakarta, Yogyakarta, Bandung, Tangerang, Jombang, Kediri, Bogor and Papua and Papua by 19%, and those from overseas (China, Saudi Arabia and Japan) are 5%. Information sources recommending the use of herbs, supplements or traditional medicines obtained from fellow patients, family or relatives (87%).

Table 3: Identity of products used as CAM by cancer patients

Fitomedicine (supplements)		
I	Meditea/green tea/teh hijau	Propolis
	Habtussaudah	S-lutena
	Acemax's	TF (Trans Factor)
	Pine pollen	TXF
	Lifepak	VCO (vcobagoes)
	Cell food	HPAI
	Biojannah	Tahesta (apple cider vinegar)
	Marine omega	Xantonin
	Youth span	K link
	Herbs	
II	<i>Curcuma zedoaria</i>	<i>Moringa oleifera</i>
	Daun sirsak	Betel leaf
	<i>Curcuma zathorrhiza</i>	Guava
	Kulit manggis	jaw shark
	Sarang semut	Green chiretta
	Daun bintang tujuh	Daun kenikir (artemisinin)
	Keladi tikus (<i>Typhonium flagelliforme</i>)	Bawang dayak (<i>Eleutherine bulbosa</i> (Mill.) Urb)
	Olive oil	<i>Loranthus sp. Div</i>
	Green Apel	
	Traditional Chinese Medicine	
III	Chinese traditional medicine (unidentified)	Tianchi
		Lamla Herbal
		G3 Lingzhi

Table 4: Advisors or information sources who recommend using herbs, supplements or traditional medicines

No	Recommender	%
1.	Friends, relatives or family.	67%
2.	Doctor, Pharmacist, Nurse, Herbalist or other health professional.	21%
3.	Electronic information media	11%
4.	belief in myths	1%

The perceived benefits of using herbs, supplements or traditional medicines by the patient include several aspects: changes in the condition of the body become more refreshed, increased appetite and can reduce the side effects of chemotherapy. In addition to other reasons: the preparations will be able to kill cancer cells and inhibit the development of cancer cells.

Table 5: The patient's description of the benefits of using herbs, supplements or traditional medicines

No	Description	Number
.		
1	The body becomes healthier	52
2	Increased Appetite	23
3	reduce the side effects of reduce chemotherapy	9
4	feel safe (mood boster)	6
5	kill active cancer cells	1
6	Inhibits disease progression	1

The table above shows the elements of experience and the perception of the patient in using herbs, supplements and traditional medicine. Recognition of his experience is greater portion (52%) such as: feel the body becomes more fit, increase appetite and reduce side effect. While a detailed review needs to be done on the patient's perception of the mechanism of action of anti-cancer from herbs.

Percentage of patients who consulted the use of herbs, supplements or traditional medicine to health workers (64%). The rest did not confirm with health professionals. This figure is a warning to health professionals to be more intensive in handling the use of CAM among cancer patients.

5 CONCLUSIONS

The irrationality of using herbs, supplements or traditional medicine should be avoided by involving health professionals to have a positive impact on cancer patients. The integration of health workers (including pharmacists) to play a role in the team still need to be optimized.

STUDY LIMITATION

Limitations in this study is that the impact of the CAM use were identified without clinical or laboratory investigations. So the evaluation of the benefits of herbs, supplements or traditional drugs and clinical risks of its use by cancer patients to be very minimal. Similarly, estimate the quality of life of CAM user did not represent a real as a patient condition were reported

ACKNOWLEDGEMENTS

Great Thank you is dedicated to The Dean, Faculty of Pharmacy, Airlangga University, Surabaya, Indonesia and also to the Research Committee for Approval and Funding the Research Grant 2016.

REFERENCES

- Mursyidah, Y. & Santoso, M. (2009). Sintesis dan Sitotoksitas 5-Bromo-3-hidroksi-3-(1H-indol-3-il)indolin-2-on dan 3-Hidroksi-5-kloro-1-metil-3-(1H-indol-3-il) indolin-2-on terhadap Sel Kanker Serviks HeLadan Sel Kanker Kolon WiDr. *Prosiding Skripsi Semester Genap 2009/2010*.
- Kementrian Kesehatan, RI. (2015). Situasi Penyakit Kanker. *Buletin Jendela, Semester 1*(Pusat Data dan Informasi), 44.
- Hunte, Pamela G. & Sultana, Farhat. (1992). Health seeking behavior and the meaning of medications in Baluchistan Pakistan. *Social Science Medicine*, 34 (12), 12.
- Ali-Shtayeh, M.S., Jamous, Rana M. & Jamous, Rania M. (2011). Herbal Preparation Use by patients suffering from cancer in Palestine. *Complementary Therapies in Clinical Practice*, 17, 6. doi: 10.1016/j.ctcp.2011.06.002
- Gray, Ross E., Fitch, Margaret, Greenberg, Marlene, *et al.* (1998). The information needs of well longer term survivors of breast cancer. *Patient Education and Counseling*, 33, 11.
- Katchmar, T.B., Bilynsky, B.T. & Shparyk, J.V. (1999). Use of alternative medicine by cancer patient attending conventional treatment in chemotherapy department. *Epidemiology and communication*.
- Kumar, Prem, Dixit, Santosh, Siddiqui, Farhan, *et al.* (2002). The benefits adverse effects and cost of herbal supplements in a clinic population. *Journal of Allergy and Clinical Immunology*.
- Curbow, Barbara, Bowie, Janice, Garza, Mary A., *et al.* (2004). Community based cancer-screening-programs in older populations making progress but can we do better. *Preventive Medicine* 676–693, 38, 18. doi: 10.1016/j.ypmed.2004.01.015
- Poonthananiwatkul, B., Lim, Rosemary H.M, Howard, Rachel L, *et al.* (2015). Traditional Medicine Use by Cancer Patients in Thailand. *Journal of Ethnopharmacology*, 168, 8. doi: 10.1016/j.jep.2015.03.057
- KeMenKes, R.I., Situasi Penyakit Kanker, Pusat Data dan Informasi, Buletin Jendela data dan Informasi, 2015.
- Menteri Kesehatan, R.I., Penyelenggaraan Pengobatan Komplementer-Alternatif Di fasilitas Pelayanan Kesehatan, 2007.