

Use of Complementary Medicine Amongst Hypertensive Patients in a Public Primary Care Clinic in Ipoh

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Summary

The use and reasons for use of Complementary Medicine (CM) amongst hypertensive patients attending the Hypertension/ Diabetes/ Asthma Clinic in Greentown Health Clinic, Ipoh was assessed. One hundred and twenty patients were selected by systematic random sampling (1:5) over a 2-week period commencing 26/04/04. Data was obtained from interviews, questionnaires and medical records. Twenty seven percent were on CM. Most commonly used CM was herbal medicine. Majority of those using CM for BP control were Malays. The Chinese and Indians were using CM mainly for other health problems. Ninety six percent were using both CM and conventional therapy concurrently. Therefore doctors should enquire about CM usage during patient assessment to prevent possible drug interactions.

Key Words: Complementary Medicine, Hypertension, Primary Care

Introduction

Complementary medicine (CM) is a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period. Complementary medicine includes all such practices and ideas self-defined by their users as preventing or treating illness or promoting health and well-being. Boundaries within CM and between the CM domain and that of the dominant system are not always sharp or fixed." This is the definition of CM as has been adopted by the Cochrane Collaboration¹. In other words, it is a group of diverse medical and health care systems, practices and products that are not presently considered to be part of conventional medicine.

Throughout the past decade its use has expanded globally and become increasingly popular. Not only has it been used in developing countries, but it is also used in countries where allopathic medicine is predominant in the health care system. The WHO estimated that, in many countries, 80% or more of the population living in rural areas are cared for by traditional practitioners. The widespread usage of CM has undeniably raised issues of public health policy and has caused some measure of apprehension amongst those practising allopathic medicine, especially when unsubstantiated claims of quality, safety and efficacy are made by these CM practitioners.

However, it is indisputable that many of our patients are still resorting to these unproven herbal remedies and traditional therapies to cure their illnesses. A recent publication on the use of CM amongst diabetic

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patients in a public primary care clinic in Malaysia found that 56% of the patients were using CM together with conventional therapy². Another study (unpublished) also found a substantial number of asthmatics (41%) using CM in two public primary care clinics³. In both studies the CM commonly used were herbal therapy, homeopathy and dietary supplements^{2,3}.

Using a traditional, comprehensive system of natural medicine known as Maharishi Vedic Medicine on patients suffering from chronic diseases such as hypertension, Parkinson's Disease and sarcoidosis, a study suggested there were substantial improvements on patients with essential hypertension⁴. Meditation that is used as an adjunct to conventional medical therapies had been reported to have positive clinical effects on a broad spectrum of physical and psychological symptoms, including reduced anxiety and pain, enhanced self-esteem and decreased stress in patients with hypertension, cancer, fibromyalgia and psoriasis⁵. However, another study that researched the effects of garlic on several cardiovascular related factors revealed that there were mixed effects of garlic on blood pressure outcomes and was statistically insignificant⁶.

Hypertension like diabetes mellitus is a major risk factor for cardiovascular disease and is associated with complications such as stroke, myocardial infarct, heart failure and renal failure⁷. It also affects a substantial numbers of our adult population with a prevalence that has increased from 14.4% to 29.9% in a period of 10 years from 1986-96⁸. A similar high prevalence was found in smaller surveys in Malaysia^{9,10}.

In USA, a study analyzing the perceptions of American adults on CM therapies, found that most respondents considered conventional medical care more helpful than CM therapies in treating hypertension¹¹. However there are few published data on the use and perceptions of CM amongst hypertensive patients locally.

The objective of this study was to assess the use of CM and reasons for use among hypertensive patients attending the combined Hypertension/ Diabetes/ Asthma (HDA) clinic in Greentown Health Clinic (GHC) Ipoh, a public primary care centre. Its HDA clinic has an average weekly attendance of 300 patients. In a morbidity survey done in 1995 in GHC (previously known as the Outpatient Department, Ipoh

Hospital before it shifted to its current premises) it was found that hypertension was the second most common presenting health problem (14.5%) after upper respiratory tract infection (18.5%)¹². It is the most frequently used clinic for hypertension follow-up for patients living in the area of Ipoh, as it is conveniently situated adjacent to Ipoh Hospital.

Materials and Methods

This cross sectional study was done in April / May 2004 in the HDA clinic in GHC, Ipoh, Perak. All patients previously diagnosed with hypertension with or without concurrent diseases, and irrespective of their type of treatment (pharmacological/non-pharmacological therapy) were included.

A questionnaire was first designed to cover details such as demographic characteristics, medical history and usage of CM. After completion of the questionnaire patients were interviewed by the first author concerning their hypertension medical history and CM usage (e.g. acupuncture, aromatherapy, ayurveda, diet/food therapy, herbal medicine, homeopathy, reflexology, yoga). Those using CM were questioned further regarding the type, duration of use, any adverse effects and reasons for CM use and the outcome of CM therapy.

Additional data such as patients' latest BP measurement, body mass index (BMI) and current anti-hypertensive medication were obtained from the patients' medical records. The classification of blood pressure (BP) control in this study was based on the JNC 7 report¹³ (systolic BP<140 mmHg and diastolic BP<90 mmHg considered as well controlled).

Prior approval was obtained from the Medical Officer of Health of the Kinta District. The doctor and staff in charge of the HDA clinic were briefed. The questionnaire designed was pretested on 15 hypertensive patients in the clinic. As patient interview required time, 10 to 12 patients were selected daily by systematic random sampling (1 in 5) to obtain a sample of 120 patients in a 2 weeks period.

Data was then compiled and analysed using SPSS for Microsoft Windows. Chi-square tests were performed to assess statistical significance between the categorical variables and CM usage.

Results

A total of 124 patients were selected in the study period. Demographic details (gender, ethnicity, age groups, occupation, education level) are listed in Table I.

The mean duration of hypertension was 8.4 years with 35.5% having well-controlled BP and 64.5% had uncontrolled BP. Ninety eight percent were on drug treatment prescribed by the HDA clinic.

Seventy-one patients (57.3%) had other concomitant diseases, the main ones being Type 2 diabetes mellitus (56.3%), cardiovascular problems (22.5%) such as previous cerebrovascular accidents and ischaemic heart diseases, and musculoskeletal problems (15.5%) like gout, prolapsed intervertebral disc and cervical spondylosis.

Thirty-three patients (27%) were found to use CM (Table I). Within each ethnic group, Malays were found to use CM more frequently as compared to the Chinese and Indians ($p < 0.01$, Table I). More Malays (76.6%) used CM for BP control as compared to Chinese (33%). The remaining Chinese patients used CM as a dietary supplement, for glycaemic control and for musculoskeletal problems. The only Indian patient on CM was using CM for musculoskeletal problems.

During interview, 60% of patients on CM for BP control told the first author that subjectively they felt that their BP control had improved, 35% felt no difference and one patient (5%) felt the BP control worsened. However there was no significant difference in the latest BP measurement of the patients on CM plus conventional therapies versus those only on conventional therapies.

The most frequently used CM therapy was herbal medicine (57.6%), followed by dietary supplements (36.3%) (Table II). Herbal therapy used included Mengkudu (*Morinda Citrifolia*), Pegaga leaf (*Centella*

Asiatica), Hempedu Bumi Plus (*Andrographis Paniculata*), papaya leaves (*Carica Papaya*), Arthrid (*Boswellia Serrata*) and herbal tea. In this study patients used Hempedu Bumi Plus for both control of hypertension and diabetes, papaya leaves for hypertension control while Arthrid and herbal teas were used for musculoskeletal problems and weight control respectively.

Dietary supplements used included Bee Propolis, Vitamin Bio C, Spirulina, Mushroom Capsules, Cod Liver Oil capsules, Greenfood Organic (processed Barley) and Celery Pills. Bee Propolis contains protein, amino acids, vitamins, minerals and flavinoids and is used as a nutritional supplement¹⁴⁻¹⁷.

The mean duration of CM usage was 20.3 months with the majority (60.6%) using CM between one month to one year. Side effects (constipation, flushing, seatiness, joint and muscular pain) were experienced by five patients (15%). The reasons for CM usage and the person (or media) who recommended CM to the patients are listed in Table II.

There was a significant relationship between CM usage and patients' level of education ($p = 0.01$, Table I). Within the tertiary education group only one patient (16.7%) used CM for BP control. Most were using it for musculoskeletal problems (50%), while the rest were using CM for glycaemic control (16.7%) and as a dietary supplement (16.7%). Most patients with secondary education were using CM for BP control (66.7%), followed by glycaemic control (13.3%), as a dietary supplement (13.3%) and for asthma control (6.7%). The majority of patients with primary education were using CM for BP control (91.7%) with 8.3% using CM for glycaemic control.

There was no significant relationship between CM usage and patients' gender, age group and occupational group.

Table I : Use of Complementary Medicine in Study Group (n=124)

	No. of patients on CM (n=33)	Total no. of patients in each Group	Percentage of patients on CM within each group (%)
Gender			
Female	24	74	32.4
Male	9	50	18.0
Ethnic Group			
Malay	26	61	42.6
Chinese	6	40	15.0
Indian	1	22	4.5
Orang Asli	0	1	0
Occupation			
Public Sector	6	14	42.9
Housewife	13	46	28.3
Pensioner	8	39	20.5
Private Sector / Self-employed	6	24	25.0
Unemployed	0	1	0
Education Level			
No education	0	14	0
Primary	12	55	21.8
Secondary	15	44	34.1
Tertiary	6	11	54.5

Table II: Complementary Medicine Usage Profile in Study Group

	No. of patients (n=33)	Percentage (%)
Type of CM		
Dietary Supplement	12	36.3
Herbal Medicine	19	57.6
Homeopathy	1	3.0
Unknown Therapy	1	3.0
Duration of Use		
Less than 1 month	3	9.1
1 month to 12 months	20	60.6
More than 12 months	10	30.3
Reason for Use		
BP control	22	66.7
Glycaemic Control	4	12.1
Asthma Control	1	3.0
Musculoskeletal Problems	3	9.1
Supplementary	3	9.1
Recommendation of CM		
Family / friends	26	78.8
Media / Advertisements	6	18.2
Pharmacist	1	3.0

Discussion

This study found that 33 out of 124 hypertensive patients (27%) had been on CM, majority on herbal therapy like Mengkudu and Pegaga. Research has shown that Mengkudu stimulates the immune system, regulates cell function and cellular regeneration of damaged cells. Hence its usefulness for a wide variety of conditions, such as hypertension, arthritis, cancer and diabetes^{18,19}. Extracts of Pegaga was found to have significant positive effect on lowering of blood pressure with improved filtration rate, reduced ankle oedema and ankle circumference^{14,19}.

Although 60% on CM subjectively felt improvement in BP control, this was not reflected in the actual BP measurement obtained from the medical records. No significant difference in the BP measurement was found between those on CM plus conventional therapy and those on conventional therapy only. Therefore patients who used CM for BP control should be monitored and advised accordingly if addition of CM did not reduce their BP level. Besides the additional cost of purchasing CM, they were at higher risk of drug interaction and adverse effects. Similar findings were found in the study on the use of CM in diabetic patients, where taking CM together with conventional therapy did not improve glycaemic control².

There is scarce data or studies conducted on the prevalence of CM usage within a hypertensive population. Information on the efficacy of CM usage in treating hypertension is also very difficult to obtain possibly indicating the lack of clinical trials conducted on this topic. Most information available from the Internet were mainly from marketing companies and CM practitioners whose claims of efficacy might be anecdotal. There is an increasing need to use randomized, controlled trials as the "gold standard" to determine the efficacy and effects of CM²⁰ and this should be applied to CM therapies commonly used in our local setting.

Current clinical practice guidelines available on the management of hypertension, deal mainly with conventional therapy and offer very little guidance to physicians on the use of CM in hypertension management²¹.

The current trend in modern medicine is to promote safe integration of complementary therapies into

orthodox medical practices. It has been suggested that this integration especially in chronic diseases can carry lower risks and cost than conventional medical treatments²². Although the most conservative approach is to recommend against CM until true evidence-based information about the efficacy and the safety of CM therapy is available, some patients may not be receptive to this approach. A reasonable approach may be to follow such use closely, assist in therapeutic decisions and monitor adverse effects and drug interactions.

A substantial number of patients (33.3%) were found to take CM for other reasons such as dietary supplements and pain relief for musculoskeletal problems. Similar findings were noted in two studies on the use of CM in diabetic and asthmatic patients where CM was used to improve their general health and well being and for pain relief²³. For such patients, the physician in charge needs to assess individual patient's requirements and weigh the benefits and harm of CM on each patient and advise accordingly.

The results showed that Malays were using CM the most when compared to other ethnic groups and the higher the education level, the more likely was one to use CM (Table I). However a limitation of this study is the small sample size, hence a larger study needs to be done to establish any cultural and educational differences. It is possible that those with higher education levels are more knowledgeable, have better access to CM literature and are more likely to afford its usage.

As the study was only done in one public primary care clinic, the results presented may or may not represent the real situation in Malaysia. Again larger and more indepth studies should be conducted to obtain nationally representative data on CM usage amongst hypertensive patients and to obtain a clearer picture on the trend and pattern of CM use in our own local population.

In conclusion this study found 27% of hypertensive patients in HDA clinic in GHC Ipoh were on CM and the majority (96%) were using both CM and conventional therapy concurrently. Therefore doctors should enquire about patients' CM usage, the reasons for use, assess possible adverse reactions and help individual patients make the best decision with regards to CM usage.

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