

# Chinese Medicine in Cancer Treatment Hope or Hype ?

## A Pilot Prospective Study on Liver Toxicity in Cancer Patients on Western Anti-cancer Therapy with or without Concurrent Chinese Medicine

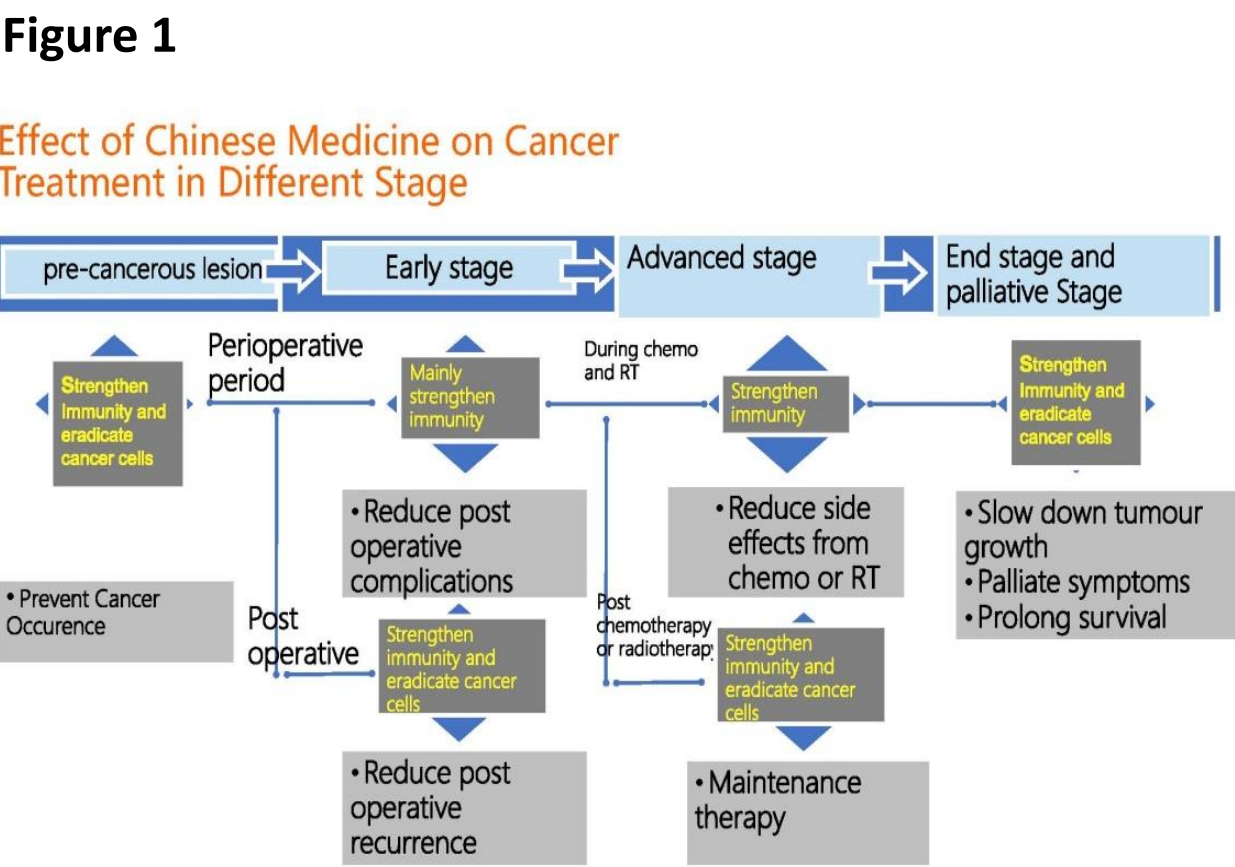
### INTRODUCTION

#### Safety and efficacy of Chinese Medicine is often questioned

Cancer rates all over the world are rising and it becomes a alerting global health problem.

Chinese Medicine (CM) is gaining global popularity. CM in cancer treatment are very common in the East. While it is usually classified as a form of complementary and alternative therapy in the West.

CM is commonly used in different stages of cancer treatment (Figure 1). This raises concerns of drug-herb interaction and toxicity in combination therapies especially **liver toxicity**. While there is increasing trend of CM use in cancer patients globally, the scientific evidence of safety and efficacy is often questioned by oncologists.

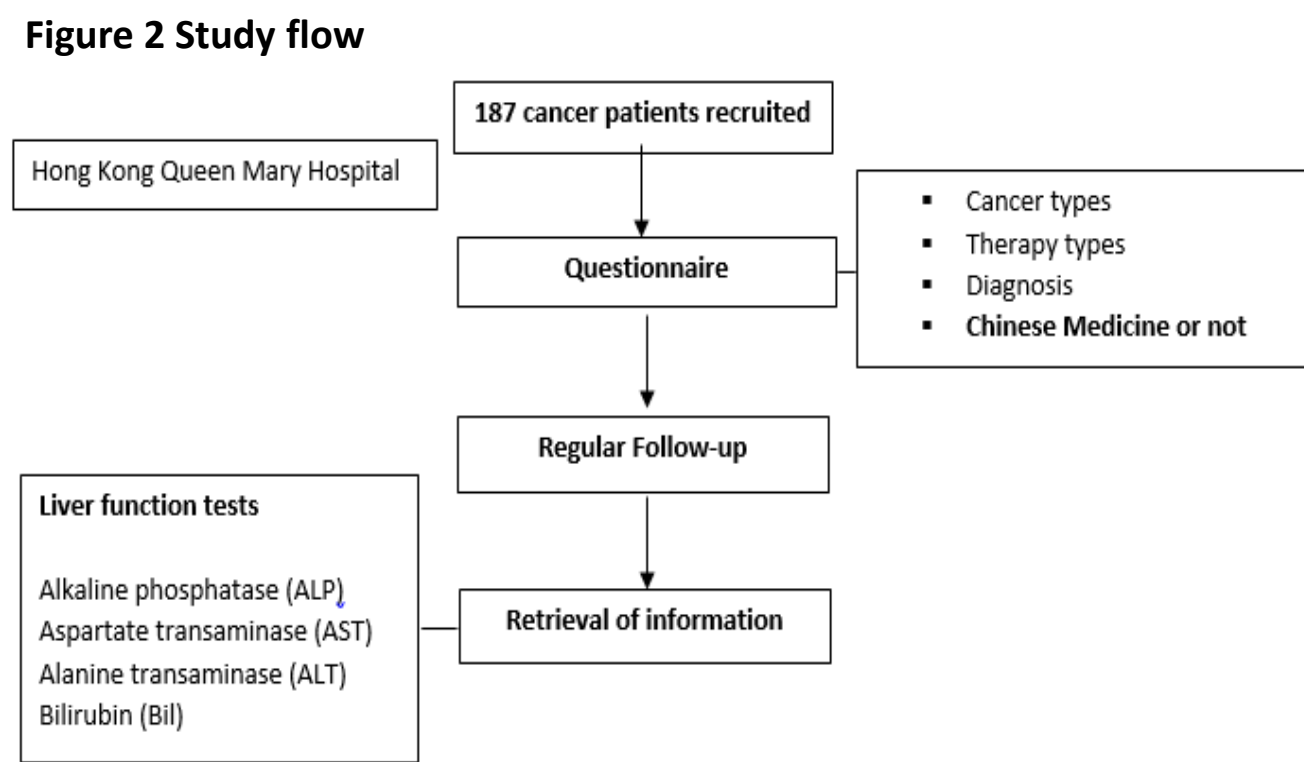


### OBJECTIVES

Liver is the major metabolizing organ for some chemotherapy agents. Deranged liver function will result in dose reduction, delay or even cessation of chemotherapy.

Given the popularity of concurrent use of Western drug therapy and CM among cancer patients, there is a pressing need to study whether the additional use of CM by cancer patients will cause a higher risk of hepatotoxicity in clinical practice.

### METHODS



- > Patients were divided into the CM and non-CM group for further analysis.
- > The differences between the CHM and non-CHM groups were analysed by Pearson's chi square test and Mann-Whitney U tests.
- > Multivariable analysis was performed by Cox proportional hazard models to identify the prognostic factors for CHM coverage.

### CHINESE MEDICINE QUICK FACTS

> Introduced in 183 countries or regions

> Increasing global recognition

WHO ICD-11 includes CM

> Restoring body balance;  
Enhancing immunity

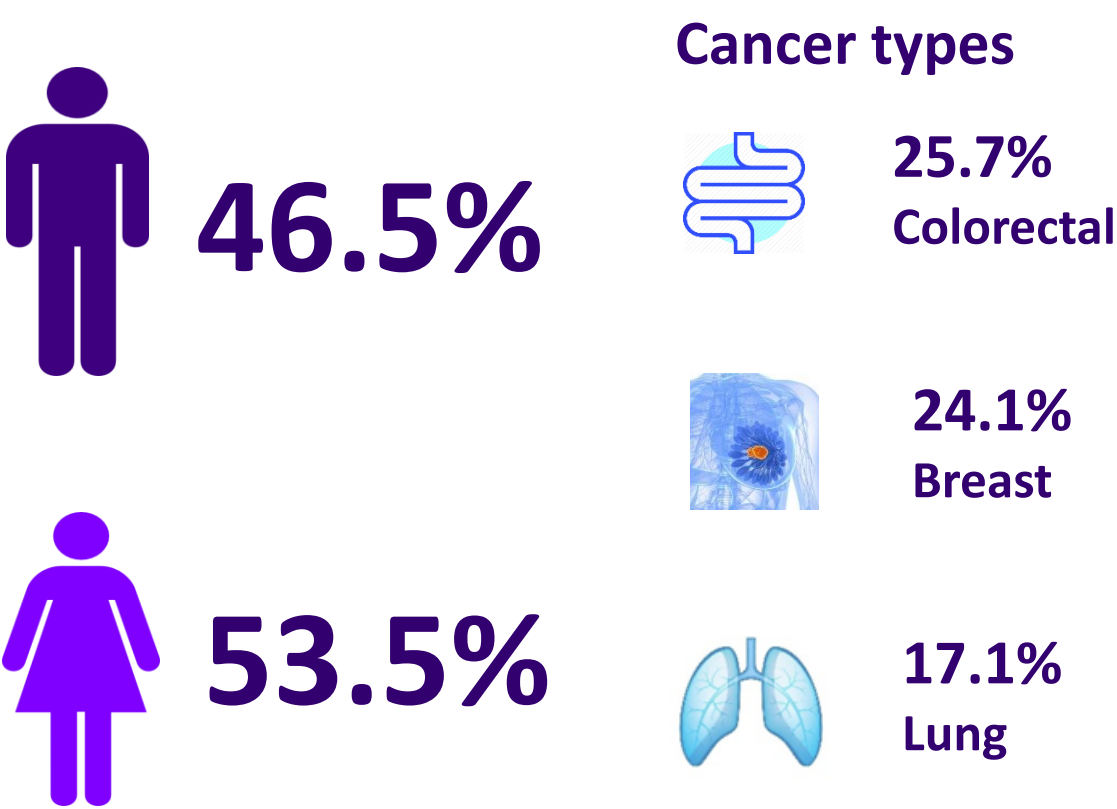
Cytotoxic herbal therapies  
Acupuncture  
Moxibustion  
Diet therapy  
Tai Chi

> Different understanding in health and diseases as Western Medicine  
(Surgery, Radiation, Chemotherapy, etc)

### RESULTS

The demographics of 187 patients were as follows

- > Median follow-up period: 5.9 months (range 1.6-124.3)
- > Median age in years: 63 (24-93)



## 29.4% Patients receiving Chinese Medicine

Among patients receiving CM,

- > 25.5% had prescription of CM decoction by Chinese Medicine Practitioners.
- > 70.9% had self-medication of CM agents.
- > 3.6% had proprietary CM taken.

Common CM agents taken included

Ginseng 人參  
Lingzhi 靈芝  
Turkey tail 雲芝  
Caterpillar fungus 冬蟲夏草  
Peanut coat 花生衣  
American ginseng 花旗參  
Jujube 紅棗

### Evaluation of liver toxicities

- > Incidence of liver function derangement (ALT, AST, ALP and Bilirubin) was classified into grades.
- > according to Common Terminology Criteria for Adverse Events version 4.0 (CTCAE v4.0).
- > Liver toxicities = either ALT, AST, or Bilirubin levels reaching grade 2 or above

Liver function derangements	CM group (n=55)	No CM group (n=132)	
Grade 0-1	49 (89.1%)	121 (91.7%)	
Grade 2 or above	6 (10.9%)	11 (8.7%)	P=0.577

➡ No significant difference in incidence of liver toxicity between those with and with CM

### Multivariate Analysis

Characteristic	Gross percentage	CM coverage	Regression coefficient	95% Confidence Interval	P value
Male (vs Female)	87 (46.5%)/100 (53.5%)	24 (43.6%)/31 (56.4%)	0.848	0.450-1.597	0.609
Age 60 or below (vs >60)	74 (39.6%)/113 (60.4%)	27 (39.6%)/28 (50.9%)	0.573	0.303-1.085	0.087
CRC (non-CRC)	48 (25.7%)/139 (74.3%)	8 (14.5%)/47 (33.8%)	0.391	0.170-0.904	0.028

➡ No prognostic factors for CM coverage  
*Unsure clinical significance for colorectal cancer patients*

### DISCUSSION

#### Concurrent CM does NOT cause more liver toxicity for cancer patients in treatment

- > Our study provides concrete evidence regarding CM safety.
- > This helps answer the doubts of certain physicians and patients and reassure them about the use of CM in clinical settings.
- > This facilitates global recognition and promotion of CM and thus quality of life of patients worldwide.

#### Future directions

1. Study with larger sample size and longer follow-up
2. Stratified analysis e.g. by frequency and types of CM taken
3. Study on efficacy of CM

### CONCLUSION

#### CM impacts all of our quality of life Safety should be assured

One must note that CM has its long history and heritage, it has its own way of documenting cases and passing on knowledge. It is only until recently that CM was put under scrutiny of evidence-based medicine.

It is hoped more related research regarding safety and efficacy of CM will be conducted given the increasing popularity of CM and reservation of certain western medicine physicians.