

# A Clinical Observation of Oriental Medicine-Based Long Care for Terminal Rectal Cancer Patient with Multiple Metastasis

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### ABSTRACT

Cancer is now the leading fatal disease in every developed country. Due to very low efficiency of conventional cancer therapeutics and important aspect of quality of life (QOL), complementary/alternative medicine (CAM) has been accepted worldwide, especially by late-staged cancer patients. Oriental medicine traditionally has stressed not only the tumor itself but the body having cancer, improving cancer-related immunity and extending survival period. Herein, we report one case of a terminal staged rectal cancer patient having spread-metastasis but showing a meaningful clinical course of around four years with Oriental medicine therapies. This study aimed to report the clinical capacity of Oriental medicine for patients with cancerous disease, to help development of Oriental medicine-derived anticancer treatments.

**Key words** : Cancer, Oriental medicine, QOL, CAM, Colorectal cancer.

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## I . Introduction

In spite of rapid advances of prevention, detection and treatment methods, cancer is the first cause of death in every developed countries. Among those, colorectal cancer(CRC) is the second most common cause of cancer-related death. Worldwide, around 35% of CRC patients have stage IV (M1, metastatic) at the time of diagnosis, and 20-50% of CRC patients with stage

II or III progress to stage IV. The five-year survival rate for stage IV disease overall remains approximately 10%<sup>1</sup>.

On the other hands, the status of low efficiency but high side-effects brings the increasing use rate of complementary/alternative medicine (CAM) in cancer patients<sup>2-3</sup>. Oriental medicine traditionally has practiced the medical theories and clinical treatments as stressing on body instead of disorders itself such as tumor regions. So, CAM or Oriental medicine has been accepted by especially late-staged cancer patients worldwide because it has been believed to support quality of life and gain of survival period.

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We report one case of terminal staged rectal cancer patient having spread-metastasis but showing good clinical course over three years by Oriental medicine therapies.

## II. Report of the case

### 1. Characters of the patient and diagnosis

A 46 old woman was diagnosed as rectal cancer with stage III and had Miles' operation<sup>4</sup> to rectal

carcinoid tumor in April 2004. She doesn't have any other past history except appendectomy in 1975. She got liver metastasis in December 2002 then received 6 cycles of chemotherapy. In June 2003, her tumor progressed as multiple metastasis at brain and bone. The treatment of another 6 cycles of chemotherapy and radiotherapy didn't ameliorate the status but induced severe general weakness. She started to be treated with Oriental medicine from November 2004.

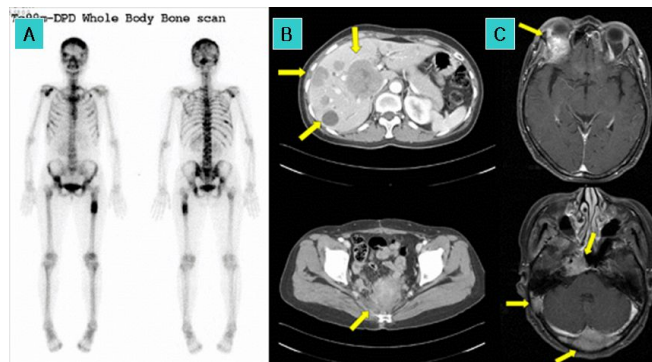


Fig. 1. Radiological findings of the patient.

A. Multiple Bone metastasis in whole body bone-scan (July 2006); B. Multiple liver metastasis and lymphadenopathy in computed tomography (Jan. 2006); C. Multiple brain metastasis in magnetic resonance imaging (Dec. 2006).

### 2. Oriental medicines and treatment

Moxibustion was daily performed to increase vitality on mainly Kwanwon (關元 CV4) and Yongcheon (涌泉 KI1). Acupuncture, pharmacopuncture and other Oriental treatments were provided to the patients according to the complains or symptoms. The main herbal prescriptions was Tongkyuwahlwheel-tang (TKHWT, 通竅活血湯), Chunggan extract (CGX)<sup>5-6</sup>, Gongjin-dan (GJD, 供辰丹)<sup>7</sup> and Myelophil<sup>8</sup> (Table 1).

### 3. Course of symptoms, lab examination and radiological finding

When the patient visited our clinic at first time, her complaints were the sever lose of energy including mild flank pain, both lower limb pain, perineum pain, facial spasm and right ophthalmostasis. Her general life performance was restricted inside house and visiting hospital, as (ECOG 2~3). From January 2006, the patient frequently was hospitalized for care of multiple pain (especially pelvic pain) and right facial palsy caused by multiple metastasis on bone and brain.

She has been capable of only limited self-care, confined to bed more than 50% of waking hours from January 2006 to now (May 2008) by judging

ECOG performance status (ECOG 3). Her body weight has been in slight decreasing phase. The patient has kept relatively stable condition in

course of symptoms despite of terminal rectal cancer with multiple metastasis (Table 2).

Table 1. Prescription and Compositional Volume of Oriental Medicines

TKHWT: Hipparion species(16), Ostrea gigas Thunb.(8), Angelica gigas Nakai(8), Salvia miltiorrhiza Bunge(8), Zizyphus jujuba Mill(8), Uncaria sinensis Oliv. Havil(12), Paeonia lactiflora Pall(6), Prunus persica(L.) Batsch(4), Carthamus tinctorius L.(4), Ligusticum chuanxiong Hort(4), Angelica dahurica Benth. et Hooker f.(4), Pheretima aspergillum (4), Polygala tenuifolia Willd.(2), Chrysanthemum morifolium Ramat.(4)
CGX: Artemisia capillaris Herba(5), Trionycis Carapax(5), Raphani Semen(5), Atractylodis Macrocephalae Rhizoma(3), Poria cocos(3), Alismatis Rhizoma(3), Atractylodis Rhizoma(3), Salvia Miltiorrhizae Radix(3), Polyporus(2), Amomi Fructus(2), Ponciri Fructus(2), Glycyrrhizae Radix(1), Helenii Radix(1)
GJD: Cornus officinalis Sieb. et Zucc.(2), Angelica gigas Nakai(2), Cervus albirostris Przewalski(0.25), Moschus moschiferus L.(0.25)
Myelophil: Salvia miltiorrhiza Bunge(2), Astragalus membranaceus Bunge(2)

Numbers in blank represent the propositional gram of herbal composition for each formulae.

Table 2. Summary of treatments, symptoms and disease progress

Date	Diagnosis	Treatment	QOL&Pain (ECOG/NRS*)	Body Weight	Oriental medicine treatments					
Apr. 2002	Rectal Ca.	Miles'operation								
Nov. 2002	Liver Meta.	Ctx. 6cycle								
Jun. 2003	Brain Meta. Bone Meta	Ctx. 6cycle Rtx. 5cycle (Bone Meta)								
Nov. 2004			3/2			↑	↑			
Jan. 2006		Rtx. 20cycle (Bone Meta)	3/2	51kg	Outpatient Tx	↓	↓			
				50kg		↑	↑			
Apr. 2007		Rtx. 10cycle (Bone Meta)	3/2	53kg			TKHWT			Acupuncture Moxibustion
				51kg	Inpatient Tx	↑	↓			
						GJD				
Apr. 2008			3/2	49kg						
May. 2008				47kg				Myelophil		

\* Eastern Cooperative Oncology Group Performance status: 0: Fully active, 1: Restricted in physically strenuous activity, 2: Up and about more than 50% of waking hours, 3: Confined to bed or chair more than 50% of waking hours, 4: Totally confined to bed or chair, 5: Dead. \* Numerical Rating Scale for pain measurement: 0 means no pain and 10 means the worst pain possible.

Pancytopenia induced by multiple bone metastasis have appeared many times, so herbal prescription (Myelophil) as well as blood transfusion (red blood cell and platelet) was given. Serum level of alkaline phosphatase (ALP), gamma-glutamyl transferase (GGT), and lactate dehydrogenase (LDH) have kept in highly

abnormal till now. Serum level of creatinine, blood urea nitrogen(BUN) were in normal range. Erythrocyte sedimentation rate (ESR) were in some fluctuations. She has kept relatively stable renal and hepatic function despite of liver multiple metastasis and hematuria in laboratory examinations(Table 3).

Table 3. Laboratory Examination

Lab result	Sep. 2005	Jan. 2006	July 2006	Jan. 2007	May 2007	Sep. 2007	Jan. 2008	March 2008
GOT (IU/L)	28	39	27	38	35	28	19	40
GTP (IU/L)	15	20	19	18	19	11	13	16
ALP (U/L)	124	107	187	179	165	128	170	296
GGT (IU/L)	37	33	83	127	120	114	81	142
LDH (U/l)	205	200	289	589	339	450	400	460
Creatinine (mg/dl)	0.8	0.9	0.7	0.7	0.8	1.0	0.7	0.6
BUN (mg/dl)	14.0	11.6	12.1	17.9	16.6	13.8	12.2	11.7
WBC (10 <sup>3</sup> /mm <sup>3</sup> )	5.04	2.83	3.25	2.25	2.55	2.47	3.46	2.06
Hemoglobin (g/∅l)	12.4	11.5	10.7	8.4	9.0	7.0	9.4	8.0
Platelet (10 <sup>4</sup> /∅l)	21.8	18.9	23.0	4.4	10.6	6.9	10.6	5.9
ESR (mm/hr)	21	28	34	8	18	25	37	34
PT (sec)		11.0	10.7	12.7	12.1	12.6	12.0	12.6
PTT (sec)		30.7	29.3	34.5	31.7	34.5	37.9	32.3
CEA (ng/ml)	1.4	1.1	0.9	0.9		1.4		
Hematuria		++	+	++	++	+	+++	++

### III. Discussion

After getting diagnosis of CRC of stage III, this patient had received routine conventional treatments: operation, chemotherapy and radiotherapy. Nevertheless, her cancer had spread to liver just after six months, then had metastasized to bone and brain at fourteen months of diagnosis. This aggravation pattern is not much different with others. Generally, 20-50% of CRC with stage II or III progress to stage IV and its five-year survival rate is known as around 10%<sup>1</sup>. The

patient started to use herbal drugs after getting side effects such as lose of energy, anorexia and discomfort in digestive system caused by re-treatments with chemotherapy and radiotherapy against metastasis on bone and brain since November 2004. Even though she got randomly western treatments by April 2004, her main medical cares were Oriental medicine-based therapies. Several herbal drugs were prescribed: CGX for improving liver function, TKHWT for reducing brain tumor-associated symptoms, GJD for increasing vital energy, and Myelophil for

ameliorating bone marrow suppression-caused blood disorders.

Above drugs partially have scientific evidences supporting their efficacies helping cancer-related symptoms or QOL of cancer patients<sup>5-8</sup>. In particular, CGX, modified herbal drug based on a traditional Chinese hepatotherapeutic formula, has therapeutic properties for chronic liver diseases in clinical tests and animal models<sup>9-11</sup>. This patient has multiple large liver metastasis, but hasn't shown destruction of hepatic cells rapidly worsening her clinical course.

The occurrence of undesired effects from conventional chemotherapy or radiotherapy for cancer is inevitable. Myelophil was developed to reduce cancer therapy-associated adverse effects and to improve QOL of cancer patients. In this patient case, classical mode of myelosuppression (anemia, leukopenia and thrombocytopenia) appeared, and became slowly worse with time flow. This patient may be caused from many times radio/chemotherapy and multiple bone metastasis together. However, it is strongly anticipated that Myelophil and others might be helpful to ameliorate the severity in consideration of long maintaining the moderate state.

The importance of keeping QOL and enhancing immunity has been well understood in cancer treatment. Accordingly Oriental medicine or CAM has been accepted by especially late-staged cancer patients<sup>12-13</sup>. In addition, due to low efficiency and high toxicity of conventional cancer therapeutics, reducing adverse effects is a critical issue for patients and doctors, given the importance of quality of life, as well as survival gain<sup>14-16</sup>. We

also have cared the patient with moxibustion at CV4 and KII, phamacupuncture at CV4, and acupuncture to support her vital energy as well as to decrease her discomforts. As acupuncture is one of major therapeutics in Oriental medicine, it has been used to control the particularly various pain-related disorders including neurophathic pain in cancer patients<sup>17-19</sup>. Many complains or complications from the multi-regional tumor masses were moderately relieved by acupuncture in this patient. We believe that acupuncture can be an useful tool in cancer management. For example, suppression of gastrointestinal mobility after pain-killer use or radiation-induced xerostomia could be somewhat improved by acupuncture<sup>20-22</sup>.

The patient has been alive keeping relatively well tolerated performance by Oriental therapies for around four years after diagnosis of multiple metastasis. It is proposed that Oriental therapeutics enhanced the immunity of body and helped sustaining QOL in this patient, and we hope that the rationale could be generalized to other cancer patients. We want this study to present the possibility of development of Oriental medicine-derived anticancer treatments via reporting a case of terminal rectal cancer patient successfully cared for by Oriental medicine.

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### ABSTRACT

암은 현대의 모든 선진국에서 가장 주요한 사망의 원인이다. 통상적인 암 치료의 낮은 효율과 삶의 질의 중요성의 측면에서, 보완대체의학은 말기의 암 환자들에게 전 세계적으로 널리 수용되어지고 있다. 한의학은 전통적으로 종양 자체뿐만 아니라 암을 지닌 몸 전체를 함께 강조해 왔으며, 그로 인하여 종양면역을 개선시키고 환자의 삶의 질을 개선시키며 생존기간을 연장하는데 일조한다고 여겨진다. 저자는 여기에서 전신에 전이가 이루어진 말기의 직장암 환자가 한방치료를 4년 정도 받으면서 양호한 임상경과를 보여 온 환자를 보고하는 바이다. 본 연구가 암성 질환에 있어 한의학의 임상적 효용성의 예를 통하여 한의학 기반의 암 치료법의 개발과 발전에 일조하길 희망한다.

**핵심단어** : 암, 한의학, 삶의 질, 보완대체의학, 대장 직장암

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