Case Report
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Cancer Treatment with the Alternative Herbal Medicine HUMA: Two Case Reports

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Abstract

Complementary and alternative medicine is popular among cancer patients worldwide. Among these, herbal medicines have a substantial place in cancer treatment and palliation. Cancer patients in the Western world use complementary and alternative medicine in conjunction with conventional care. However, the situation in a developing country such as India that has some highest cancer rates worldwide is alarming. Lack of early screening and treatment facilities coupled with high cost of treatment often compels patients to seek alternative measures for treatment. We discuss two cancer patients with advanced disease who tried an alternative poly herbal therapy (HUMA). This herbal formulation was derived from various important Ayurvedic herbs viz. *Azadirachta indica, Curcuma longa, Embelica officinalis, Ocimum sanctum, Semecarpus anacardium,* and *Tinospora cordifolia*, among others. A male patient 59 years of age with disseminated malignant disease of either pseudomyxoma peritonei or metastatic mucinous adenocarcinoma showed immense benefit by this therapy with complete regression of his malignancy. The patient completed five years of disease-free survival after cessation of therapy. The second case, a 33-year old male patient diagnosed with rectal carcinoma and multiple metastatic lesions in his liver underwent HUMA therapy with stabilization in his disease progression for an 11-month period. In this case, treatment with HUMA was helpful in palliative care. No adverse effects were noted in either patient.

Keywords: CAM, HUMA, Alternative cancer therapy

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Introduction

The increasing use of complementary and alternative medicine (CAM) by cancer patients is well documented.[1] Complementary and alternative medicine is defined as a diagnosis, treatment or prevention that complements mainstream medicine by contributing to a common whole, by satisfying a

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demand not met by orthodoxy or by diversifying the conceptual framework of medicine.[2] Acute side effects of chemotherapy and radiotherapy can occasionally be life threatening and may affect patient compliance in addition to generating vulnerability to the adoption of alternative forms of treatment which promise cure.[3] The cost of orthodox medicine is often prohibitive to many individuals living in developing nations; for a large proportion of individuals who cannot afford these medicines, CAM remains the only alternative. Additionally, the recent proliferation of internet and media that promote the use of all forms of CAM seem to influence its use.[4] Unlike conventional therapies that are regulated by law and require practitioners to be registered and regulated, CAM practioners are difficult to track. The consequences of their practice that includes untoward effects of treatments are not documented. A culture of 'pervasive silence' and 'professional disinterest' has been described in relation to CAM, so patients may be reluctant to raise the subject in case health professionals 'disapprove'.[5] Clinicians and nurses are rarely cited as a source of information about CAM,[6] leaving the field open for patients to explore other, potentially less reliable avenues.

The cancer scenario in India is quite alarming. India has some of the highest cancer rates in the world.[7] The majority of Indian cancer patients have late stage incurable disease when first diagnosed[8] and many are not seen in a hospital setting.[9] Lack of early screening and treatment facilities coupled with high cost of conventional treatment often compels patients to seek alternative treatments. Patients try many forms of CAM; however, Ayurveda and herbal medicines are the most popular among the cancer patients in India.[10] Ayurveda is a traditional medical system in India that is recognized by its government. Herbal remedies are believed by the general public to be safe, cause less side-effects and less likely to cause dependency.[11] There are reports that certain herbs and dietary supplements are unlikely to be beneficial and may be problematic or dangerous when taken during cancer treatment.[12] This report has discussed the follow-up of two patients with advanced disease who tried an alternative poly herbal cancer therapy, HUMA, for cancer treatment. HUMA therapy was first advocated by Vaidya S M Atiq, an Ayurvedic doctor from Lucknow.[13,14] This herbal formulation has been derived from various important Ayurvedic herbs, viz. *Azadirachta indica, Curcuma longa, Embelica officinalis, Ocimum sanctum, Semecarpus anacardium,* and *Tinospora cordifolia,* among others. The herbal medicines are orally administered and well tolerated by patients. Instances of adverse side effects are less due to individual dosing of the medicine.

Case Report 1

A 59-year-old male patient presented with severe abdominal pain, dyspepsia, ascites, cholelithiasis with choledocholithiasis and subacute intestinal obstruction to the Outpatient Department of Gastroenterology, Sanjay Gandhi Postgraduate of Medical Sciences (SGPGIMS), Lucknow on May 03, 2002. He had a past history of Koch's abdomen for which he was receiving treatment. A CT scan performed on March 14, 2002 detected minimal left pleural effusion with

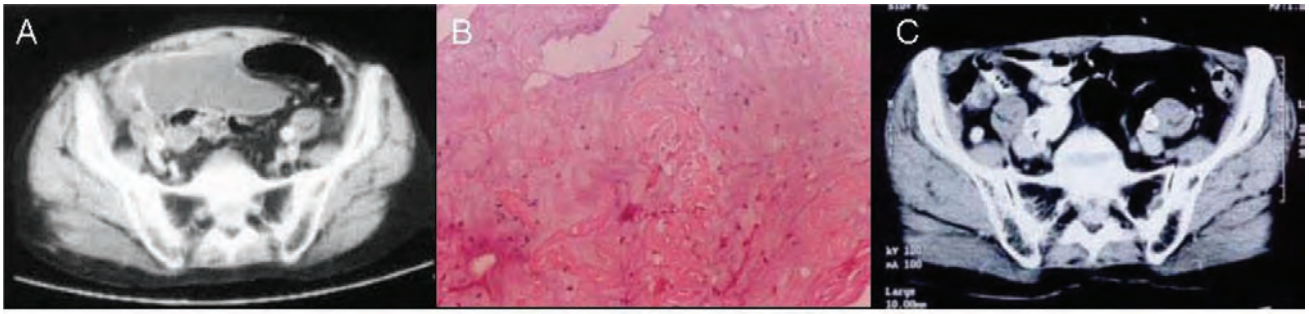

Figure 1. CT scan before and after therapy; A- CT scan dated March 14, 2002 showing ascites; B- Histopathology; C- CT scan dated September 13, 2002 normal study.

bilateral basal segment collapse consolidation and mediastinal lymphadenopathy (Figure 1). He also had hepatomegaly with left lobe enlargement and fluid collection in the pelvis and hepatorenal pouch. Laparoscopic exploration revealed multiple whitish nodules seen over the parietal peritoneum in the right upper quadrant on the falciform ligament and in the right iliac fossa. The patient underwent a parietal nodular biopsy and the histopathology suggested either pseudomyxoma peritonei or metastatic mucinous adenocarcinoma. In view of disseminated disease and his general condition the patient could not be given any curative treatment. The patient, following discharge from the hospital, began treatment with HUMA on May 17, 2002. At the onset of the alternative therapy the patient was extremely ill, cachexic, anorexic, and unable to walk without support. The patient was virtually bed ridden for 15 days after starting HUMA. However, gradually marked improvement in his general health condition was noted; his appetite and strength improved. Abdominal ultrasound done on August 06, 2002 at SGPGIMS showed 70 ml of organizing fluid in the pelvis. However, the patient's clinical improvement was remarkable and following an additional six months of therapy he began his normal routine activities. His active alternative therapy stopped on March 31, 2003. However, supportive treatment in the form of liver tonic and vitamins were continued. A CT scan performed on September 13, 2003 and USG on February 04, 2005 were normal. The patient was followed for the next three years. There were no reports of any abnormal events. The patient expired recently this year; however, there was no evidence of recurrence of his malignancy.

Case Report 2

A 33-year-old male patient presented with rectal bleeding on September 2003 to the Outpatient Department of All India Institute of Medical Sciences (AIIMS). He was apparently asymptomatic one year previous when he began to have this complaint. There was no fresh bleeding, rather occasional blood-streaked stool. Proctoscopy revealed a polypoid growth on the anterior wall and a biopsy was performed. Histopathology indicated adenocarcinoma. A CT scan on October 03, 2003 indicated rectal carcinoma with multiple liver metastatic lesions. The option of chemotherapy and surgery was discussed with the patient. However, in view of the disseminated malignant disease he refused to undergo any conventional therapy. He began taking Ayurvedic medicine (metallic preparation) in September 2003. His condition slightly improved and he began to have side effects of nausea and vomiting. The patient stopped the Ayurvedic metallic medicine in January and began taking a Chinese medicine (Zooncan). His condition did not improve much and the patient began to have gradually increasing stomach pain. A CT scan performed on April 12, 2004 indicated an increase in the number of metastatic liver lesions. He eventually stopped taking Zooncan in April 2004. From May 2004 the patient began HUMA therapy (both orally and as a local application). All other alternative medicines were completely stopped with the exception of a liver tonic and vitamins. After the start of HUMA, the patient's condition gradually improved; his

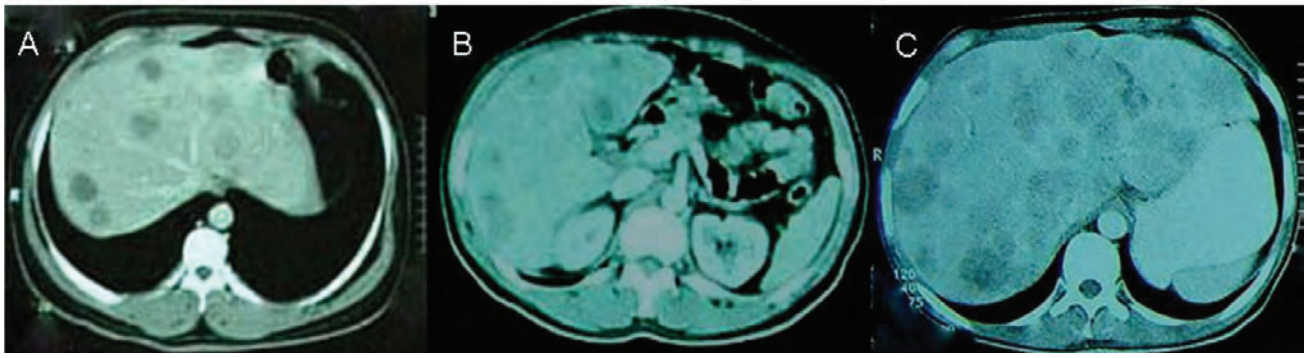

Figure 2. CT scan showing liver metastasis; [A-December 3, 2003; B- April 12, 2004; C- September 1, 2004].

stomach pain decreased, appetite improved, and he gained 1 kg within a three month period. He was able to leave his house and return to his routine work after about four months of therapy. However, a CT scan on September 01, 2004 revealed rectal wall thickening located mainly on the anterior and right lateral wall with few perirectal nodes and multiple hepatic metastases (Figure 2). After the start of HUMA the patient remained relatively event free for almost 11 months except for complaints of mild-to-moderate abdominal pain associated with mild off and on passage of tissue per rectum. The histopathology analysis of the tissue excreted from the rectum was performed on May 2005 from AIIMS which indicated adenocarcinoma. After approximately one year of therapy the patient's abdominal pain began to increase. The dose of the herbal medicine was immediately doubled and a morphine tablet was added to the therapy. Although his abdominal pain was under control for next three months, however his morphine dose had to be occasionally adjusted. Thereafter, the health condition of the patient started to decline rapidly and he expired on October 2005.

Discussion

The poly herbal formulation HUMA is made from various important Ayurvedic herbs. The anticancer potential of *Ocimum sanctum*,[15] *Azadirachta indica*,[16] *Embelica officinalis*,[17] *Semecarpus anacardium*,[18] *Tinospora cordifolia*,[19] and *Curcuma longa*[20] are well proven in experimental studies. Aqueous extracts of *Embelica officinalis* at 100 µg/ml can significantly modulate the basal levels of oxidative markers and enhance antioxidant defences of HepG2 cells.[21] Limonoid that is present in leaves and flowers of *Azadirachta indica* have been shown to induce apoptosis by both intrinsic (Bax, Bad, Bcl-2, Bcl-xL, Mcl-1, XIAP-1 and caspase-3, 9) and extrinsic (TRAIL, FasL, FADDR and caspase-8) pathways in estrogen dependent (MCF-7) and estrogen independent (MDA-MB-231) human breast cancer cell lines.[22] Extracts of *Ocimum sanctum* leaves inhibit proliferation, migration, invasion, and induce apoptosis of pancreatic cancer (PC) cells *in vitro*. The expression of genes that promote the proliferation, migration and invasion of PC cells that include activated ERK-1/2, FAK, and p65 (subunit of NF-κB) downregulate in PC cells after *Ocimum sanctum* treatment.[15] Curcumin from *Curcuma longa* has shown to suppress TNF-induced NF-κB activation and NF-κB-dependent reporter gene expression. TNF-induced NF-κB-regulated gene products that are involved in cellular proliferation (COX-2, cyclin D1, and c-Myc), anti-apoptosis (IAP1, IAP2, XIAP, Bcl-2, Bcl-xL, Bfl-1/A1, TRAF1, and cellular cFLIP) and metastasis (VEGF, MMP-9, ICAM-1) have been shown to be downregulated by curcumin.[23] Octacosanol isolated from Tinospora cordifolia downregulates VEGF gene expression by inhibiting matrix metalloproteinases and nuclear translocation of NF-κB and its DNA binding activity.[23]

As the formulation of HUMA could not be patented, hence, the exact composition is not available. The herbal medicines are orally administered, well tolerated and inexpensive compared to conventional therapy, with no adverse effects. These factors may have made this alternative cancer therapy very popular.[24] However, the users of this therapy are mostly cancer patients with advanced disease and palliation is their main motive. There are some reports of complete regression of oral cancer with HUMA.[13, 25] Cancer cell line studies also confirm the anticancer potential of this formulation.[26] Annually, hundreds of patients use this alternative therapy with few reported adverse effects.[27] The dose of the medicines is not fixed; rather it is titrated according to the patient's condition and may be one of the main reasons for the lack of adverse effects. The two case reports described here were benefited from HUMA therapy. Although the first patient took anti-tuberculosis treatment along with HUMA, however, we believe that his malignancy may have regressed only because of HUMA. In the second patient, we believe that HUMA was able to somehow slow down disease progression and prolong the survival

period. The clinical improvement noted in this patient after the start of HUMA therapy was remarkable.

Some forms of cancer herbal medicines are found in most areas of the world. Although many herbal remedies claim to have anticancer effects only a few have gained substantial popularity as alternative cancer therapies. Essiac is one of the most popular herbal cancer alternatives in North America. It has been popularized by a Canadian nurse, Rene Caisse. Essiac is comprised of four herbs: burdock root (*Arctium lappa*), Indian rhubarb (*Rheum palmatum*), sheep sorrel (*Rumex acetosella*), and the inner bark of slippery elm (*Ulmus fulva* or *U. rubra*).[10] PC-SPES is one of the most studied herbal therapies in prostate cancer. It is comprised of a combination of eight herbal compounds: *Ganoderma lucidum, Scutellaria baicalensis, Rabdosia rubescens, Isatis indigotica, Dendranthema morifolium, Seronoa repens, Panax pseudoginseng,* and *Glycyrrhiza uralensis*. PS-SPES appears to have estrogenic activity.[10] Chinese herbs are also popular for cancer treatment. A report has indicated that a 51-year-old lady patient with squamous cell carcinoma of the lung ($T_2N_2M_0$) survived for eight years following treatment with Chinese herbal medicine that consisted of nine Chinese medicinal herbs. These herbs have been reported to possess anti-tumor and immune enhancing effects.[28] It is important that we should have an open mind about herbal cancer therapies that are primarily orphaned due to the lack of sufficient evidence which is mandatory to the set standards of modern clinical practice.

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