

Wheatgrass in Afifi's Garden: Sprouting Integrative Oncology Collaborations in the Middle East

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Afifi's Story

Afifi, a 46-year-old mother of four children, was admitted to the oncology service at the Lin Medical Center in Haifa, Israel, after partial gastrectomy and omentectomy for locally advanced stomach carcinoma. After the first adjuvant chemotherapy treatment with cisplatin, epirubicin, and fluorouracil (CEF), Afifi suffered extreme fatigue, dizziness and lightheadedness, headaches, shoulder pain, mouth sores, nausea and vomiting, severe diarrhea, poor appetite, difficulty sleeping, and bothersome anxiety. Afifi's medical oncologist referred her for a consultation with an integrative physician (IP) practicing complementary medicine, with the aim of having her distressing symptoms addressed. The IP to whom Afifi was referred was a family medicine specialist, skilled in supportive care-oriented complementary and traditional medicine, who directs an integrative oncology program within the Lin Medical Center oncology service.

The initial integrative medicine consultation was scheduled before the start of Afifi's second chemotherapy cycle. Afifi entered the consultation room accompanied by her husband, Saleh, and her sister. Afifi and her sister wore the traditional dress of the Druze community, a unique monotheistic religious and cultural group found in Israel and neighboring countries. The conversation took place in Hebrew and Arabic (the Druze use the Arabic language), starting with Saleh's description of his wife as a housewife caring full time for the well-being of the family. They lived in a small Druze village located in the Galilee, in northern Israel, 50 kilometers from the oncology medical center.

After Saleh had finished speaking, the IP asked Afifi how she perceived her disease. Afifi noted that the first symptoms of her illness, upper abdominal pains, were similar to what her husband had experienced 8 months earlier; he was ultimately diagnosed with splenic lymphoma. One day, while Afifi was busy fulfilling traditional familial obligations, she felt severe and searing abdominal pain. This resulted in admission to the hospital, where she was ultimately diagnosed with gastric cancer. Both Afifi and Saleh perceived the cancers afflicting them as parts

of an interrelated process—a curse involving the stomach of Afifi and the spleen of Saleh.

The IP asked Afifi about her main expectations regarding the integrative consultation. Afifi was interested in symptom control, with fatigue and pain being the most bothersome. She also wanted to know more about what to eat or avoid eating during the chemotherapy treatment. Although Afifi had had a consultation with a clinical dietician after surgery, she still sought physician guidance about ingesting foods and plants, because she had already lost 9 kg. The severity of symptoms, concerns, and expectations were evaluated by the IP using the Edmonton Symptom Assessment Scale (ESAS) and Measure Yourself Concerns and Wellbeing (MYCAW) questionnaires as well as a detailed biopsychospiritual assessment.

Although Afifi stated that she had not used any alternative, traditional, or complementary treatments for her cancer, nor had she used any in the past for other medical conditions, the IP learned that she was interested in medicinal herbs commonly used in traditional Druze cuisine. Accordingly, the physician suggested incorporating several herbs referenced in traditional Islamic texts on medicine for the treatment of Afifi's troublesome symptoms: carob extract (*Ceratonia siliqua*) mixed with minced fresh sage leaves (*Salvia fruticosa* Miller) for the treatment of mouth sores, tea prepared from pomegranate extract (*Punica granatum*) mixed with bay leaves (*Laurus nobilis*) to alleviate stomach pain and diarrhea, fresh ginger (*Zingiber officinale*) mixed with fresh green salad for the first 3 days after chemotherapy to lessen nausea, and other herbal remedies. The integrative oncology assessment and treatment plan were documented in Afifi's medical record along with evidence-based data regarding the efficacy and safety of the herbs and their potential interactions with Afifi's current chemotherapy regimen. The IP referred brief reports to Afifi's caregivers within the multiprofessional team.

Nine days later, during the second week of the second adjuvant chemotherapy cycle, Afifi stated that her mouth sores had significantly improved. She presented fresh leaves her family had collected in

the mountains surrounding their village. After discussing the potential efficacy and safety of these herbs, the IP suggested also undergoing acupuncture treatment to ameliorate fatigue and nausea. Afifi agreed to the acupuncture, with the understanding that the points selected would be located on the distal hands and feet to maintain her cultural and religious value of modesty.

The third appointment with the IP was scheduled 1 day after the third cycle of chemotherapy. Although Afifi felt significant fatigue, she expressed optimism because she gained 2 kg of weight. Afifi reported daily use of freshly squeezed wheatgrass juice, which had been highly recommended by a traditional practitioner living in a nearby Druze village. She was surprised by but at the same time seemed pleased with the IP's suggestion to continue to collaborate with this traditional practitioner.

Over the next five IP visits, Afifi was treated with acupuncture combined with breathing exercises and guided imagery. Dietary and herbal recommendations were changed and adapted to Afifi's symptoms and chemotherapy schedule. Afifi made enormous efforts to come to the oncology medical center despite a long drive. Three days after Afifi's final chemotherapy treatment, a concluding assessment compared ESAS and MYCAW questionnaire results with pretreatment measurements. Significant improvements were reported regarding Afifi's previous concerns of diet and fatigue and her evaluation of pain, fatigue, nausea, depression, anxiety, sleep, appetite, and general well-being. At the bottom of the MYCAW questionnaire, Afifi was asked to describe the effects of the treatment in her own words. She wrote, "Following the *needle treatment* [acupuncture], I felt better in my tiredness, appetite, nausea and sleep; the herbs assisted in treating the mouth sores and my sense of taste is significantly better. Herbs also helped in treating diarrhea, and I feel stronger." A few days later, Afifi's medical oncologist provided feedback (using a structured questionnaire) on the integrative treatment results. The oncologist acknowledged Afifi's symptom improvement, with some reservations regarding the contributing factors because of the lack of a comparative control.

Afifi, In Between Traditional Carob and Modern CEF Chemotherapy

Afifi's case and treatment choices reflect a dichotomy between two parallel health-belief models. On one hand, Afifi and her husband perceived their cancers as a two-headed monster, dual manifestations of the same disease. This narrative resembles the traditional understanding of cancer as a result of the evil eye, a malevolent glance rooted in dislike or envy that members of many cultures superstitiously believe can cause injury or bad luck for the person toward whom it is directed. This image is embodied in Afifi's story by symptoms that traditionally imply depletion (eg, weight loss, fatigue, decreased appetite), loss of control (eg, dizziness, nausea, vomiting, diarrhea, anxiety, insomnia), and pain and suffering (eg, headaches, shoulder pains, mouth sores). This health-belief model pointed Afifi toward natural and traditional medicine: What foods can strengthen me (regarding depletion symptoms)? Which herbs can balance me (regarding loss-of-control symptoms)? Which traditional modalities can alleviate my pain and suffering? At the same time, Afifi was also inclined to try conventional oncology treatment, a quest for powerful interventions of surgery and chemotherapy. Thus, the carob remedy suggested by the IP, the CEF prescribed by the medical oncologist, and the original abdominal surgery represent two treatment modalities informed by

Afifi's coexisting health-belief models. The first was inwardly and traditionally oriented and was complemented by the other belief through the powerful external interventions of modern oncology. Both were necessary in her journey of healing.

Smithson et al¹ in the United Kingdom performed a systematic literature search and meta-ethnography (ie, synthesis of qualitative and interpretive ethnographic research) to synthesize key concepts in the experiences of patients with cancer using complementary and alternative medicine (CAM) and concluded that integrated advice and services are highly valued by patients. During the last decade, *Journal of Clinical Oncology* and other journals have published notable studies on the prevalence of CAM use among patients with cancer,²⁻⁵ perspectives of CAM users,⁶ the low disclosure of CAM use to oncologists,⁷ and implications of CAM use for research and clinical care.⁸ Increased research on efficacy and the lack thereof^{9,10} and on safety and risks¹¹ of complementary therapies has marked the need for specialized integrative CAM programs to be implemented in leading oncology care institutions in the United States, supported by governmental agencies such as the Office of Cancer Complementary and Alternative Medicine at the National Cancer Institute.¹²

The term integrative oncology was coined to emphasize the dialogue between CAM providers, oncologists, family practitioners, and other health care providers who envision an extended and holistic patient-centered approach in oncology care. Integrative oncology services focus mainly on supportive and palliative care and are challenged daily by the need to model a patient-tailored treatment program that will comply with a patient's expectations, concerns, needs, and symptoms, along with assurance of its efficacy, safety, lack of interactions with chemotherapy treatment, and cost considerations. In the case described here, Afifi challenged both the IP and her oncologist with her story and the need to relate to her cross-cultural perspective. Indeed, patients with cancer in non-Western cultures in the Middle East often identify with their indigenous traditional-medicine backgrounds and frequently employ nutritional and herbal treatments.¹³ Paying attention to patients' interest in traditional medicine may be important for a variety of ethical reasons: respecting patient autonomy and health-belief models, assuring beneficence and protection, and valuing medical pluralism and public accountability.¹⁴ Moreover, it may have deeper implications in establishing dialogue with patients who express their desire to benefit from CAM supportive care.

Greens Defending Against the Evil Eye: Integrating Traditional and Complementary Medicine in Middle East Cancer Care

Constructing an integrative treatment program for Afifi required clinical expertise in both traditional medicine and contemporary oncology care.^{15,16} On the basis of our experience with cross-cultural aspects of CAM in Jewish and Arabic societies in Israel,¹⁷ we believe that introducing integrative oncology elements to patients with an affinity for traditional medicine necessitates a collaborative approach between CAM providers and oncologists, using knowledge generated by basic and clinical research scientists, botanists, and scholars in traditional medicine.

Recently, a team of researchers from Israel, Egypt, Turkey, the Palestinian Authority, Jordan, and Morocco got together via the Middle East Cancer Consortium (MECC) to design an integrative oncology program. This program was developed through a three-stage process and aims to provide patients and physicians with knowledge

regarding the role of traditional medicine and other CAM modalities in cancer supportive care. During the first stage, a historical and ethno-botanical search was performed for cancer-related keywords in Middle Eastern traditional medicine resources; this effort located 44 herbs mentioned in historical prescriptions. A subsequent Medline search for studies conducted in the Middle East regarding CAM and cancer care yielded 144 articles from 12 countries. In the third stage, potentially useful herbs were prioritized for additional clinical research by a team of four senior oncologists in the region with diverse areas of expertise in clinical oncology. The initial findings of this process were presented at the recent MECC Workshop on Integrative Medicine in Cancer Care in the Middle East, which was held in June 2010 in Cyprus. This endeavor yielded the initial sprouts of collaborative research initiatives, with the ultimate goal of constructing integrative oncology guidelines for health care professionals in the Middle East.

Summary

We suggest that bridging traditional and modern medicine can in many cases empower patients and enable them to better cope with cancer treatment. Our experiences in the Middle East might be applicable to other areas of the world facing a similar need to integrate evidence-based medicine with narrative-based, ethics-based, and ethnic medicine in the practice of oncology. In addition, we hope that our common efforts will encourage future collaboration among scientists and clinicians in the Middle East, which in turn might promote understanding, tolerance, and mutual respect among professionals in an area of the world troubled by ongoing geopolitical conflict.

AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

The author(s) indicated no potential conflicts of interest.

REFERENCES

- Smithson J, Paterson C, Britten N, et al: Cancer patients' experiences of using complementary therapies: Polarization and integration. *J Health Serv Res Policy* 15:54-61, 2010 (suppl 2)
- Hyodo I, Amano N, Eguchi K, et al: Nationwide survey on complementary and alternative medicine in cancer patients in Japan. *J Clin Oncol* 23:2645-2654, 2005
- Dy GK, Bekele L, Hanson LJ, et al: Complementary and alternative medicine use by patients enrolled onto phase I clinical trials. *J Clin Oncol* 22:4810-4815, 2004
- DiGianni LM, Garber JE, Winer EP: Complementary and alternative medicine use among women with breast cancer. *J Clin Oncol* 20:34S-38S, 2002 (suppl 18)
- Richardson MA, Sanders T, Palmer JL, et al: Complementary/alternative medicine use in a comprehensive cancer center and the implications for oncology. *J Clin Oncol* 18:2505-2514, 2000
- Hlubocky FJ, Ratain MJ, Wen M, et al: Complementary and alternative medicine among advanced cancer patients enrolled on phase I trials: A study of prognosis, quality of life, and preferences for decision making. *J Clin Oncol* 25:548-554, 2007
- Navo MA, Phan J, Vaughan C, et al: An assessment of the utilization of complementary and alternative medication in women with gynecologic or breast malignancies. *J Clin Oncol* 22:671-677, 2004
- Cassileth BR, Vickers AJ: High prevalence of complementary and alternative medicine use among cancer patients: Implications for research and clinical care. *J Clin Oncol* 23:2590-2592, 2005
- Loprinzi CL, Levitt R, Barton DL, et al: Evaluation of shark cartilage in patients with advanced cancer: A North Central Cancer Treatment Group trial. *Cancer* 104:176-182, 2005
- Crew KD, Capodice JL, Greenlee H, et al: Randomized, blinded, sham-controlled trial of acupuncture for the management of aromatase inhibitor-associated joint symptoms in women with early-stage breast cancer. *J Clin Oncol* 28:1154-1160, 2010
- Sparreboom A, Cox MC, Acharya MR, et al: Herbal remedies in the United States: Potential adverse interactions with anticancer agents. *J Clin Oncol* 22:2489-2503, 2004
- Frenkel M, Ben-Arye E: Communicating with patients about the use of complementary and integrative medicine in cancer care, in Cohen L, Markman M (eds): *Integrative Oncology: Incorporating Complementary Medicine Into Conventional care*. Humana Press, Totowa, NJ, 2008, pp 33-48
- Ferro MA, Leis A, Doll R, et al: The impact of acculturation on the use of traditional Chinese medicine in newly diagnosed Chinese cancer patients. *Support Care Cancer* 15:985-992, 2007
- Ben-Arye E, Schiff E, Golan O: Ethical issues in integrative oncology. *Hematol Oncol Clin North Am* 22:737-753, 2008
- Ben-Arye E, Frenkel M, Bar-Sela G, et al: Teaching complementary medicine at an academic oncology department. *J Cancer Educ* 23:46-50, 2008
- Ben-Arye E, Frenkel M: An approach to teaching physicians about complementary medicine in the treatment of cancer. *Integr Cancer Ther* 3:208-213, 2004
- Ben-Arye E, Karkabi K, Karkabi S, et al: Attitudes of Arab and Jewish patients toward integration of complementary medicine in primary care clinics in Israel: A cross-cultural study. *Soc Sci Med* 68:177-182, 2009