Kundalini Yoga Meditation Techniques for Psycho-oncology and as Potential Therapies for Cancer

David S. Shannahoff-Khalsa

The ancient system of Kundalini Yoga (KY) includes a vast array of meditation techniques. Some were discovered to be specific for treating psychiatric disorders and others are supposedly beneficial for treating cancers. To date, 2 clinical trials have been conducted for treating obsessive-compulsive disorder (OCD). The first was an open uncontrolled trial and the second a single-blinded randomized controlled trial (RCT) comparing a KY protocol against the Relaxation Response and Mindfulness Meditation (RRMM) techniques combined. Both trials showed efficacy on all psychological scales using the KY protocol; however, the RCT showed no efficacy on any scale with the RRMM control group. The KY protocol employed an OCD-specific meditation technique combined with other techniques that are individually specific for anxiety, low energy, fear, anger, meeting mental challenges, and turning negative thoughts into positive thoughts. In addition to OCD symptoms, other symptoms, including anxiety and depression, were also significantly reduced. Elements of the KY protocol other than the OCD-specific technique also may have applications for psycho-oncology patients and are described here. Two depression-specific KY techniques are described that also help combat mental fatigue and low energy. A 7-part protocol is described that would be used in KY practice to affect the full spectrum of emotions and distress that complicate a cancer diagnosis. In addition, there are KY techniques that practitioners have used in treating cancer. These techniques have not yet been subjected to formal clinical trials but are described here as potential adjunctive therapies. A case history demonstrating rapid onset of acute relief of intense fear in a terminal breast cancer patient using a KY technique specific for fear is presented. A second case history is reported for a surviving male diagnosed in 1988 with terminal prostate cancer who has used KY therapy long term as part of a self-directed integrative care approach.

Keywords: psycho-oncology; meditation; yoga; anxiety; depression; fear; anger; cancer

A 2004 National Institutes of Health (NIH) "state-ofthe-science" consensus conference statement concluded that "cancer remains one of the most feared

DOI: 10.1177/1534735404273841

diseases" and "the most common side effects of cancer and treatments for cancer are pain, depression, and fatigue." According to Pirl² in an evidence report of the literature with no restrictions on age, gender, ethnicity, and disease stage, the prevalence rates for major depressive disorder (MDD) and depressive symptoms comorbid with cancer appear to be between 10% and 25%, a rate that is at least 4 times greater than the estimated point prevalence rate of 2.2% in the general population for MDD.3 Massie4 stated that the symptoms of depression range from sadness to MDD and that depression is "difficult to evaluate when a patient is confronted by repeated threats to life, is receiving cancer treatments, is fatigued, or is experiencing pain." Massie⁴ also summarized the reported prevalence rates for depression as having ranges of 0% to 38% for major depression and 0% to 58% for depression spectrum syndromes after further clarifying that the complex nature of the question of prevalence rates now exists because of variations used to define depression, measurement methods, and the variation in populations studied. She⁴ also summarized the variance rates of depression for several cancers: "oropharyngeal (22%-57%), pancreatic (33%-50%), breast (1.5%-46%), and lung (11%-44%)," and "there is a lower rate with other cancers, such as colon (13%-25%), gynecological (12%-23%), and lymphoma (8%-19%)."

According to Lawrence et al,⁵ in the NIH state-of-the-science report, cancer-related fatigue ranges from 4% to 91% and again depends on the study population and assessment methods. He claimed that "few population-based studies and no longitudinal studies of cancer-related fatigue have been performed" and that "the methods of fatigue assessment were highly

DSS-K is at the University of California, San Diego, and the Khalsa Foundation for Medical Science, Del Mar, California.

Correspondence: David S. Shannahoff-Khalsa, The Research Group for Mind-Body Dynamics, Institute for Nonlinear Science, Mail Code 0402, University of California, San Diego, 9500 Gilman Drive, La Jolla, California, 92093-0402. E-mail: dsk@ucsd.edu.

variable." Glaus et al⁶ reported that fatigue is the symptom most commonly reported by cancer patients, and according to Richardson,⁷ fatigue is reported to be the most distressing symptom and the one causing the greatest amount of interference with daily life.

In a 1997 meta-analysis, Van't Spijker et al⁸ concluded, perhaps surprisingly, that "there were no differences between cancer patients and the general population with respect to anxiety and psychological distress." Voogt et al,⁹ in a recent study of 105 patients, found a prevalence rate of 13% for depression and 8% for anxiety and that "the emotional problems patients mentioned most frequently were anxiety about metastases (26%), the unpredictability of the future (18%), and anxiety about physical suffering (15%)."

Regardless of incidence rates in comparison to healthy populations, novel noninvasive low-cost treatments for depression, fatigue, anxiety, and the other common emotional sequelae may be useful tools for patient care if they prove to be effective with cancer patients. Clearly there is a need for improvements in both the palliative care of terminal patients and for patients who have hope for remission or an extended life.

This article is meant as an introduction to Kundalini Yoga (KY) meditation techniques that have been traditionally used in depression, fatigue, anxiety, anger, regret, and fear and may have application in cancer patients. Intuitively, we know that "cancer remains one of the most feared diseases" and that it is highly likely that all patients at some point suffer with many if not all of these stressful emotions. Previously, however, these tools have been clinically tested with obsessive-compulsive disorder (OCD) patients with success in an open uncontrolled clinical trial¹⁰ and in an NIH-funded randomized controlled trial in comparison to more standard meditation techniques that proved ineffectual with 5 psychological scales. 11-15 OCD is considered to be the most recalcitrant and difficultto-treat psychiatric disorder. It is considered to be both a "waking nightmare" and also the "disease of doubt," in which patients often do not trust their own senses.¹⁶ While the techniques here have been studied over time for up to 12 months in 2 trials, symptomatic relief can be near immediate but short-lived in OCD patients (see case history¹³). KY meditation techniques may thus in time be regarded as an important choice to help ameliorate psychological symptoms resulting from a cancer diagnosis and for the distress that tends to increase especially in latter stages. Hwang et al¹⁷ showed that psychological distress increases significantly in the last 2 to 3 months before death. A case history demonstrating acute relief of intense fear in a woman with terminal breast cancer after using KY techniques is presented below.

The relevant techniques for psycho-oncology from the KY OCD protocol are reviewed here; the entire protocol has previously been published.^{11,13} Two articles in peer-reviewed journals also include KY meditation techniques for other psychological purposes, and some of those techniques are included below either independently or as included in a 7-part psychooncology protocol. See Shannahoff-Khalsa¹³ for techniques described as (1) "Meditation to Help Understand, Focus, and Create a Clear Consciousness," (2) "Technique for Healing Nervous Disorders—A 'Pratyhar' Meditation Technique to Create a Silent and Stable Mind Toward a State of Thoughtlessness," (3) a technique for anxiety called "When You Do Not Know What to Do," (4) a "Meditation to Balance the 'Jupiter and Saturn' Energies—A Technique Useful for Treating Depression, Focusing the Mind, and Eliminating Self-destructive Behavior," and (5) a "Meditation for Inducing Normal and Extra-normal Brain Function: A Tantric Meditation Technique." Techniques 1, 2, 3, and 5 are included in the 7-part psycho-oncology protocol, and technique 4 is described here as a technique for depression. Another article¹⁴ includes KY meditation techniques specific for treating phobias, addictions, depression, grief, dyslexia and learning disorders, and insomnia. These publications refer to the system of KY that was taught by Yogi Bhajan, a master of KY who taught in the West from 1968 until his passing in 2004. He taught KY openly to the public, breaking the tradition of secrecy that had surrounded it for thousands of years.¹⁸

This article is the first time that KY meditation techniques that are directed toward cancer per se are reported in a peer-reviewed scientific journal. These techniques have yet to be subjected to clinical trial. However, the marked success with OCD may inspire the appropriate trials, initially, at least, as adjuncts to conventional therapies. These techniques should be tested in programs by individuals trained in integrative cancer care along with those well trained with the implementation of KY meditation techniques for patient care. In 1991, Shannahoff-Khalsa¹⁹ published a chapter in a scientific book on stress that included KY techniques for (1) treating anxiety; (2) treating fatigue; (3) stimulating the immune system for treating solid tumors; (4) expanding and integrating the mind; (5) developing a comprehensive, comparative, and intuitive mind; and (6) regenerating the central nervous system. Techniques 2, 3, and 4 are included below. Technique 2 is listed in the Techniques for Psycho-oncology section, and techniques 3 and 4 are described in the section Potential Therapies for Treating Cancer. Other techniques are also included in each section.

In addition, included below is an entire 7-part protocol taught privately to the author by Yogi Bhajan for the specific purpose of treating the emotional sequelae of cancer. This is the first public release of this material.

Techniques for Psycho-oncology: Treating Fatigue, Anxiety, Depression, Fear, and Anger; Meeting Mental Challenges; and Turning Negative Thoughts to Positive Thoughts*

All KY techniques, including those in this section or the next and whether they are practiced individually or in a group, are best practiced after "tuning in" to the mantra "Ong Namo Guru Dev Namo." This is the case for either an advanced practitioner or someone practicing KY for the first time. This is technique 1 described below. Techniques 1, 2, 3, 7, 8, 9, and 10 are part of the OCD protocol. ^{11,13}

Technique 1: Tuning in to Induce a Meditative State

This practice helps establish a meditative state and gives the experience of being in a "womb of healing energy" if practiced for 5 to 10 minutes.

Description of Technique

Sit with a straight spine and with the feet flat on the floor if sitting in a chair. Put the hands together at the chest in "prayer pose": the palms are pressed together with 10 to 15 lb of pressure between the hands. The area where the sides of the thumbs touch rests on the sternum with the thumbs pointing up (along the sternum), and the fingers are together and point up and out at a 60° angle to the ground. The eyes are closed and focused at the "third eye" (imagine a sun rising on the distant horizon or focus the eyes at the point where the nose indent meets the forehead). A mantra is chanted aloud in a 11/2 breath cycle. Inhale first through the nose and chant "Ong Namo" with an equal emphasis on the "Ong" and the "Namo." Then immediately follow with a half-breath inhalation through the mouth and chant "Guru Dev Namo," with

*The techniques taught in this publication are not meant to be a substitute for medical care and advice. Patients are advised to consult with health care professionals with regard to matters relating to health, including matters that may require diagnosis or medical attention. In particular, those who have been diagnosed with cancer, addictive disorders, depression, grief, or learning, anxiety, phobic, or sleep disorders or who are taking or have been advised to take any medication should consult regularly with their physicians regarding any changes in medication use. The author, the publisher, the estate of Yogi Bhajan, or any related institutions are not liable for any effects based on information here.

approximately equal emphasis on each word. The practitioner should experience the vibrations that these sounds create on the upper palate and throughout the cranium while letting the mind merge into the vibrations of the sounds. This should be repeated a minimum of 3 times and can be repeated for 10 to 20 times or even longer for more relaxing and peaceful effects.

Technique 2: Spine Flexing for Vitality and to Help Reduce Fatigue

Description of Technique

This technique can be practiced while sitting either in a chair or on the floor in a cross-legged position. If in a chair, hold the knees with both hands for support and leverage. If sitting cross-legged on the ground, grasp the ankles in front with both hands. Begin by pulling the chest up and forward, inhaling deeply at the same time. Then exhale and relax the spine down into a slouching position. Keep the head up straight without allowing it to move much with the flexing action of the spine. This will help prevent a whip action of the cervical vertebrae. All breathing should be only through the nose for both the inhale and exhale. The eyes are closed as if looking at a central point on the horizon, or the third eye, otherwise described as the notch region on the nose exactly midway between the eyes. The mental focus is kept on the sound of the breath while listening to the fluid movement of the inhalation and exhalation. Begin the technique slowly while loosening up the spine. Eventually, a very rapid movement can be achieved with practice, reaching a rate of 1 to 2 times per second. A few minutes are sufficient in the beginning. Later, there is no time limit. Food should be avoided just prior to this exercise. If an unpleasant feeling of light-headedness develops, stop momentarily and then continue. Be careful to flex the spine slowly in the beginning. Relax for 1 to 2 minutes when finished.

Technique 3: Shoulder Shrugs for Vitality and Fatigue

This technique helps to increase metabolic activity and increase thyroid and parathyroid activity. This technique should not be practiced by individuals who are hyperactive.

Description of Technique

While keeping the spine straight, rest the hands on the knees if sitting in a cross-legged position or with hands on the thighs if on a chair. Inhale and raise the shoulders up toward the ears, then exhale, letting them down. All breathing is only through the nose. Eyes should be kept closed and focused at the third eye. Mentally listen to the sound of the inhalation and exhalation. Continue this action rapidly, building to 3 times per second for a maximum time of 2 minutes.

Technique 4: Meditation Technique for Fatigue and Listlessness

This technique was published previously in a scientific text¹⁹ and by Bhajan.²⁰

Description of Technique

Sit with a straight spine. Place palm against palm together at the center of the chest, the base of the thumb region (area between wrist line and origin of thumb) touching the sternum lightly, with the fingers pointing up and away from the chest at a 60° angle to the ground. Eyelids are lightly closed, with the visual focus where the nose meets the eyebrows. Inhale, breaking the breath into 4 equal parts, hold a few seconds, and then exhale by breaking the breath again into 4 equal parts; then hold the breath out for a few seconds before inhaling again. If desired, instead of counting 1, 2, 3, 4 to gauge the rhythm, use the sounds Sa, Ta, Na, Ma in their place. Mentally vibrate these sounds on the inhale and exhale: it increases the effects and benefits the psyche. On each part of the inhale or exhale, pull the navel point in slightly. One full cycle or breath takes about 7 to 8 seconds. Continue this pattern for 3 to 5 minutes. Then inhale deeply, hold the breath in, and press the palms together with maximum force for 10 seconds. Relax for 15 to 30 seconds. Then repeat this entire procedure 2 times. When finished, if necessary, immediately lie on the back with the eyes closed and relax the entire body for 2 minutes. Pregnant women or individuals with high blood pressure can do this exercise but must refrain from pressing the palms together at the end.

Technique 5: Technique for Anxiety

This technique was originally called "When You Do Not Know What to Do," and it was published previously in a scientific journal in 2003¹³ and originally taught by Yogi Bhajan on March 2, 1979.²⁰ This technique is useful for anxiety or for becoming calm and peaceful and developing a deep state of relaxation. See the description of technique 2 below in the section A 7-Part Psycho-oncology Protocol.

Technique 6: Technique for Depression

Two meditation techniques are described here that can be either used together or practiced individually. Either independently or together, they have been described as having a major impact on depression and giving very quick relief when practiced correctly. Techniques 1 through 3 listed above would be helpful precursors to techniques 6a and 6b and are likely to amplify their benefits for depression and in avoiding depression and gaining greater mental clarity. Technique 2 above has been observed to have substantial effects on depression even if practiced alone for 11 to 15 minutes.

Technique 6a: Meditation to Balance the "Jupiter and Saturn" Energies: A Technique Useful for Treating Depression, Focusing the Mind, and Eliminating Self-destructive Behavior

This technique was also published previously and was originally taught by Yogi Bhajan on December 12, 1995.

Description of technique. Sit with a straight spine. The hands are facing forward with the ends of the Jupiter (index) and Saturn (middle) fingers pointing straight up near the sides of the body at the level of the eye. Close the ring and little fingers down to the palm using the thumbs. The Jupiter finger and the Saturn finger are spread open in a V shape (or closed). The eyes are closed. For 8 minutes, open and close the Jupiter and Saturn fingers about once per second or two. Simultaneously, imagine the planets of Jupiter and Saturn coming together and then again going apart in synchrony with the finger movement. Continue this movement (imagery) for 8 minutes. Then while continuing exactly the same exercise, begin to inhale and exhale through the nose with the movement (inhale as fingers are spread, exhale as fingers close). Continue this part for 2 minutes. Then for the last minute, spread the 2 fingers wide and hold them wide apart (which requires some effort) while making the mouth into an O shape and breath in and out of the mouth using only the diaphragm (not the upper chest wall). After 1 minute, inhale, hold the breath in, and tense every muscle tightly (including the hands, fingers, everything) in the body for 10 seconds. Exhale and repeat 1 time for 10 seconds. Relax.

Effects of the meditation. The mind becomes very focused and clear, and the brain becomes very energized (few other 11-minute techniques compare). This technique is said to eliminate depression. The meditation is used to coordinate and balance the Jupiter and Saturn energies and to reduce the possibility of self-destructive behavior. In addition, when the Jupiter and Saturn energies (functional brain areas related to the index and middle finger, respectively) are

integrated, individuals are said to overcome difficult challenges more easily.

Technique 6b: Technique for Fighting Brain Fatigue

This technique was also published previously and was originally taught by Yogi Bhajan on March 27, 1995. This technique has been used to help prevent depression and to treat depression. When practiced correctly, it is stated to be a powerful antidote to depression, especially if combined with the technique 6a and techniques 1 through 3. It is also said that this exercise helps balance the diaphragm, fights brain fatigue, helps renew the blood supply to the brain, moves the serum in the spine, and benefits the liver, navel point, spleen, and lymphatic system.

Description of technique. Part 1: Sit with a straight spine with the elbows bent and the upper arms near the rib cage. Forearms point straight out in front of the body, parallel to the floor. The right palm faces downward and the left palm faces upward. Breathe only through the nose; inhale and exhale in 8 equal parts. On each part or stroke of the breath, alternately move the hands up and down. One hand moves up as the other hand moves down. The movement of the hands is slight, approximately 6 to 8 inches, as if bouncing a ball. Breathe powerfully. Continue for 3 minutes, and then change the hand position so that the left palm faces downward and the right palm faces upward. Continue for another 3 minutes, and then change the hand position again so that the right palm faces downward and the left palm faces up for the last 3 minutes (total time is 9 minutes).

Part 2: Begin slow and deep breathing (again only through the nose), stopping the movement and holding the position. Close the eyes and focus on the center of the chin. Keep the body perfectly still so it can heal itself. Keep the mind quiet, stilling all thoughts. Time for this is 5.5 minutes.

To finish: Inhale deeply, hold the breath, make the hands into fists, and press them strongly against the chest for 15 seconds. Exhale. Inhale deeply again and hold the breath, this time pressing both fists against the navel point for 15 seconds. Exhale. Inhale again and hold the breath and bend the elbows, bringing the fists near the shoulders. Press the arms strongly against the rib cage for 15 seconds and exhale. Now relax.

Technique 7: Technique to Tranquilize an Angry Mind

This technique was first published in 1997¹¹ and again in 2003. Sit with a straight spine, and close the eyes. Simply chant aloud the sounds Jeeo, Jeeo, Jeeo,

Jeeo" continuously and rapidly for 11 minutes without stopping (pronounced like the names for the letters G and O). During continuous chanting, which can approximate 2 to 3 repetitions per second, do not stop to take long breaths but continue with enough very short breaths to keep the sound going continuously. Eleven minutes is both the minimum and maximum time for this technique. This technique is useful even for a "red hot" angry mind, and the effects can last up to 3 days, depending on the severity of the anger. Practicing twice a day or more is acceptable if required for the most severe states, but it rarely requires more frequent practice.

Technique 8: Technique for Managing Fears

This technique was first published in 199711 and again in 2003. 13 Sit with a straight spine. Close the eyes. Place the left hand into the navel point, with the 4 fingertips and thumb grouped together, and press very lightly. Place the 4 fingers of the right hand (pointing left) over the third eye (on the forehead just above the root of the nose), as if assessing fever. Play the audiotape of Chattra Chakra Varti²² for 3 minutes while consciously assessing any fears and relating to the mental experience of the fears. This technique is claimed to help manage acute states of fear and to help eliminate fearful images and negative emotions that have developed due to frightening events. The effect is that the negative emotions related to specific fears are replaced with positive emotions, thereby either acutely or over time creating a new and different mental association with the original stimulus. This technique is analogous to the practice of exposure and response prevention. However, it is not necessary to actually physically engage a threat or fearful situation. See the case study below for the use by a cancer patient in the latter stages of her disease and facing the fear of death.

Technique 9: Technique to Help Meet Mental Challenges—The "Victory Breath"

This technique, first published in 1997¹¹ and again in 2003, ¹³ can be used at any time. It does not require that the practitioner sit. It can be employed while driving a car, while in a conversation, while taking a test, and so forth. The eyes can be open or closed, depending on the situation. Take a breath through the nose, and hold this breath for 3 to 4 seconds. During the hold phase only, mentally hear the 3 separate syllables (sounds) of the word *victory* (vic-tor-ee), then exhale. Do not run the sounds together. Mentally creating the 3 separate sounds should take 3 to 4 seconds, not longer and not less. The entire time of each repetition

with the inspiration, hold, and expiration should be about 10 seconds. This technique can be employed multiple times, until the patient achieves the desired relief. When employed in the OCD therapy sessions, the technique was usually done for 3 to 5 minutes, with the eyes closed while sitting with a straight spine to maximize the effects. There is no time limit for its practice. OCD patients found this technique very useful on active days, and it can be used whenever a person feels mentally challenged.¹³

Technique 10: Chant to Turn Negative Thoughts Into Positive Thoughts

This technique, first published in 1997¹¹ and again in 2003, 13 should be employed in a peaceful environment while sitting with a straight spine (or in any position the patient can manage) and with the eyes closed. The mantra "Ek Ong Kar Sat Gurprasad Sat Gurprasad Ek Ong Kar" is repeated a minimum of 5 times. It is best practiced from 5 to 11 minutes, while chanting it rapidly with up to 5 repetitions per breath. Eventually, one no longer thinks about the order of the sounds; they come automatically. The mental focus should be on the vibration created against the upper palate and throughout the cranium. If performed correctly, a very peaceful, bright, elevated, and "healed" state of mind is said to be achieved, especially when the practitioner reaches the 11-minute time with 3 to 5 repetitions per breath.

A 7-Part Psycho-oncology Protocol

This specific series and sequence of techniques was taught privately to the author by Yogi Bhajan for use with cancer patients; it has not been published previously. As with all of the other KY meditation techniques described above, the protocol starts by employing technique 1 called "tuning in." More information on mantras and the use of sound in healing can be found elsewhere. ²³⁻²⁵

An initial note should be made about the following protocol. This series of techniques may seem very challenging for some, and it may be near impossible for others to achieve the full times or even half or less time initially (and some patients may even be bedridden). Each patient should attempt only what they feel is reasonable in the beginning and then slowly increase the times and extent of practice. The protocol is presented below for the full times for each technique. If parts are left out, the protocol should still be attempted only in the order provided. Should a patient choose to practice only the last technique (while including the tuning-in technique), this is also acceptable. This series is designed with an intention to

help ameliorate all of the negative emotional symptoms that a cancer patient may incur on diagnosis and during treatment for cancer or palliative care. This protocol is not meant to be a substitute for the treatment of physical pain, although these symptoms may reduce with practice if they have been exacerbated by emotional distress.

This protocol has 3 major parts. The first is to help reduce the effects of shock, anger, fear, guilt, and the "bargaining" process. These are the issues related to what yogis call the "negative mind." In yogic thought, it is understood that the negative mind evolved to help recognize the danger in any given situation and that this is the first mind to take action. The problem comes when the activity of the negative mind overwhelms one's experience, as it frequently does with cancer patients. Part 2 gives the opportunity to be in the "observer" state of mind, to simply watch the whole process of what the patient is going through, unemotionally and without attachment. Yogis call this the "neutral mind." This mind is not judgmental and helps to manage decisions for the most objective outcome. The third part of the protocol gives the patient the opportunity to work toward the acceptance phase of the grief process. At this time, they can have more peace, whether they continue living or make their transition. This part of the protocol activates what yogis call the "positive mind."

Part 1: Section 1 (22 Minutes Total Practice Time)

1. Gan Puttee Kriya

Gan Puttee Kriya is a technique to help eliminate negative thoughts, "psychic scarring," and acute stress. This technique was first taught by Yogi Bhajan on November 2, 1988.²¹

Description of technique. Sit with a straight spine, either on the floor or in a chair. The backs of the hands are resting on the knees with the palms facing upward. For those few who can sit in "lotus pose," let the back of the hands rest on the feet as they face up. For those who are not able to get out of bed, their hands (palms up) should rest on the thighs or hips. The eyes are nine-tenths closed (one-tenth open but looking straight ahead into the darkness, not the light below). Chant consciously from the heart in a natural, relaxed manner, or chant in a steady relaxed monotone. Chant out loud the sound "SA" (the A sounding like "ah"), and touch the thumb tips and index fingertips together quickly simultaneously with about 2 lb of pressure, then chant "TA" and touch the thumb tips to the middle fingertips, then chant "NA and touch the

thumb tips to the ring fingertips, then chant "MA" and touch the thumb tips to the little fingertips, then chant "RA" and touch the thumb tips and index fingertips, then chant "MA and touch the thumb tips to the middle fingertips, then chant "DA" and touch the thumb tips to the ring fingertips, then chant "SA" and touch the thumb tips to the little fingertips, then chant "SA" and touch the thumb tips and index fingertips, then chant "SAY (sounding like the word say with a long "a") and touch the thumb tips to the middle fingertips, then chant "SO" and touch the thumb tips to the ring fingertips, then chant "HUNG" and touch the thumb tips to the little fingertips. Chant at a rate of about 1 sound per second. The thumb tip and fingers touch with a very light 2 to 3 lb of pressure with each connection. This helps to consolidate the circuit created by each thumb-finger link. Practice for 11 minutes. To finish, remain in the sitting posture and inhale and hold the breath for 20 to 30 seconds while shaking and moving every part of the body vigorously, then exhale and repeat this for 3 minutes. Then immediately begin the next technique below.

2. "When You Do Not Know What to Do"

This technique is described above as technique 5 and can be practiced alone for the treatment of anxiety, where it can be practiced for 11 to 31 minutes maximum time but has a modification here for time and should be practiced only in sequence in this series for 8 minutes.

Description of technique. Sit straight. Rest the back of one hand in the palm of the other, with the thumbs crossing each other in one palm. If the right hand rests in the palm of the left hand, then the left thumb rests in the right palm, and the right thumb then crosses over the back of the left thumb. The hands are placed a few inches in front of the chest, at center level from the heart; the hands do not touch the chest, and the elbows are resting down against the rib cage. The eyes are open but focused on the tip of the nose (the tip/end that is not visible to the practitioner's eye). The breathing pattern has 4 parts that repeat in sequence:

- 1. Inhale and exhale slowly through only the nose.
- Then inhale through the mouth, with the lips puckered as if to kiss or whistle. After the inhalation, relax the lips and exhale through the mouth slowly.
- 3. Then inhale through the nose and exhale through the mouth.
- The last breath pattern is inhaling through the puckered lips and exhaling through the nose.

Continue this cycle for 8 minutes, and then take a 7-minute rest.

Part 1: Section 2 (26 Minutes Total Practice Time)

3. Meditation for Bringing the Mind to Total Silence With an Absence of Thoughts

This technique was first published in 2003¹³ and is called a *pratyhar* meditation technique. It was originally taught by Yogi Bhajan on October 31, 1994. This technique helps bring the mind to a state of total silence and is claimed to be helpful in curing any nervous disorder. Pratyhar techniques also help achieve a mental state for experiencing existence and nonexistence (transcendence) simultaneously.

Description of technique. Sit with a straight spine. There are 4 parts, and each part can be practiced for 5 minutes as instructed or, if the patient has problems with stamina, they can do each part for 4 minutes (or even 1 minute, with a 4-minute rest before doing the next part for 1 minute with a 4-minute rest, etc) and take a 1-minute break in between. The idea is to begin at a level that does not discourage the practitioner from doing it again but also with some respectable level of effort so that they can maximize the benefits. Each individual can find his or her own level of comfort when first attempting this technique.

Part 1: Extend the index finger and keep it straight. Bring the thumb over the middle, ring, and little fingers to keep them closed against the palm. Hold the hands up with the index fingers straight up at about chin level approximately 9 inches in front of the face. Alternately, move the index fingers back and forth about 4 inches in a jerk-like motion, as if touched by an electrical shock. The eyes are open looking forward. The key is to move the fingers consciously and be aware of the movement of each hand. It is not necessary to stare at the hands as they move. Only watch the movement of the hands through the peripheral vision. Be aware of each movement. Move each hand alternately intentionally about 4 inches. Do not let it become an "automatic" movement. Continue this for 5 minutes.

Part 2: Continue as above for 5 more minutes, but keep the eyes open and focused on the tip of the nose (the end that is not visible to the practitioner's eye).

Part 3: Again continue as in part 2, but now say aloud "Thou" with each hand motion for 5 more minutes.

Part 4: Maintain a straight spine, but sit very quietly with the arms and hands relaxed in the lap for 5 minutes. Try to think about nothing, if a thought comes mentally think "no thoughts." Focus the mind on nothing, on nonexistence. To end, stretch the arms up over the head, pull the spine straight, inhale and twist

left, exhale center, inhale and twist right, and repeat twists 2 times.

4. Meditation for Focus and Clarity

This short 3-minute technique was first published in 2003. ¹³ This technique is said to create a clear mental focus and to bring clarity to the consciousness.

Description of technique

- 1. Sit with a straight spine. The eyes are closed. The left thumb and little finger are sticking out from the hand, the other fingers are curled into a fist with fingertips on the moon mound (the root of the thumb area that extends down to the wrist).
- 2. The left hand and elbow are parallel to the floor, with the pad of the tip of the left thumb pressing on the curved notch of the nose between the eyes. The little finger is sticking out.
- 3. With the right hand and elbow parallel to the floor, grasp the left little finger with the right hand and close the right hand into a fist around it, so that both hands now extend straight out from the head.
- 4. Push the notch with the tip of the left thumb to the extent that soreness is felt during the deep slow breathing. After continued practice, this soreness reduces. The time is 2 to 3 minutes, depending on strength and stamina, but should not be practiced for longer.

To end, keeping the posture with eyes closed, inhale, press a little harder against the root of the nose, pull the navel point back toward the spine, tighten the abdominal and back muscles, hold the breath for about 10 seconds, and then exhale. Repeat this 1 more time for 10 seconds.

5. Meditation for Deep Relaxation

This technique was first taught by Yogi Bhajan on July 2, 1998, to help improve health. It was claimed that "there is no more powerful relaxation than this. When you are very nervous, and you have too many thoughts, and you are being ground up by everything, do this for 3 minutes. You will be shocked—things will disappear: There is nothing more relaxing."

Description of technique. Sit in an easy pose and maintain a straight spine, or sit in a chair and keep both feet flat on the ground and the legs uncrossed. Open the mouth to make an O. Stick the tongue out of the right side of the mouth to form a Q. Keep the tongue out. If having trouble holding the tongue out in this position, hold it slightly between the teeth. (Note that the tongue should not be straight out but extended out to the right side of the mouth only.) Breathe slowly and deeply through the mouth, keeping the tongue

extended the whole time. Keep the eyes closed. Any beautiful music can be played or no music at all. Practice only for 3 minutes. To end, keeping the spine straight and eyes closed, inhale and hold the breath for 13 seconds, then squeeze the breath out with a powerful exhale through the mouth. Repeat, holding the breath for 11 seconds, and then one last time, inhale and hold for 7 seconds. The last comment by Bhajan about this meditation is "karma will be over. It is called 'pre-experience.' Your 'Q' should be perfect."

Section 1 is now complete, and these techniques help take the patient through the shock, anger, fear, guilt, and bargaining process that is common for many cancer patients. Now, immediately begin part 2.

Part 2

6. A Tantric Meditation Technique to Create a Supernormal State of Consciousness

This technique was first published in 2003. ¹³ This is said to be a very powerful healing meditation that helps to organize and normalize the various regions of the brain and is called a tantric meditation because of the hand posture, although it is not a "White Tantric Yoga" meditation technique. This is a very sacred technique because of its power to produce rapid changes in brain states.

Description of technique. Sit with a straight spine. The eyes are closed and focused at the third eye point, the point at which the nose meets the forehead. The hands are interlocked with the right thumb dominant to the left thumb, all the fingers are interlaced, and the left little finger is on the bottom. (This finger-tofinger relationship is to be used even if one naturally has the left thumb dominant to the right, etc.) The right middle (or Saturn) finger is brought into the space between the hands and points toward the region of the wrists. The hands are then closed, and the right Saturn finger becomes enclosed in a cave-like structure. The hands are held at the heart center, level with the elbows resting at the sides. Sit and relax in this posture for 3 to 5 minutes with the breath regulating itself. Then keeping everything the same, begin to consciously regulate the breath where the inhale, hold breath in, and exhale are of equal lengths of time (no hold breath out period). The breath cycle can approach 1 minute, in which the inhale, hold in, and exhale are each 20 seconds in duration. Have a conscious relationship with the experience in the hand posture and the sensations in the head in a simultaneous manner. This technique can frequently produce unique sensations in the head. Practice this for a total of 11 minutes.

A break of 15 to 20 minutes is recommended here before going on to part 3 and depends on the health of the patient.

Part 3

7. Meditation to Be Done When You Want to Command Your Own Consciousness to Higher Consciousness

This technique was originally taught by Yogi Bhajan on September 21, 1978.

Description of technique. Sit in an easy crossed-legged pose and maintain a straight spine or sit in a chair and keep both feet flat on the ground and without crossing the legs. The hands are relaxed in the lap. But grasp the left thumb with the right hand and wrap the fingers of the left hand around the back of the right hand. The eyes are nine-tenths closed and focused on the tip of the nose (the end not visible to the practitioner's eye). This eye posture is called ajna bond and translates to "mind lock," and the effect of this eye posture is to stabilize the activity of the frontal lobes. The following mantra is chanted 3 times on 1 breath: "Hari Nam Tat Sat Tat Sat Hari." Three times on 1 breath may be difficult for some beginners, but with practice and good lungs, it can easily be achieved. Chant more rapidly if necessary to complete the 3 cycles. The word Hari is pronounced like "Har" in the name Harvey, and the Isounds like "ee." The word Nam sounds like Nam in Viet Nam, with short "a" sound. The a in Tat sounds like "ah" and the same for Sat. This mantra is said to awaken the infinite creative power within. The time for practice is 31 minutes. For a few minutes immediately after the 31 minutes, chant "Sat Nam Sat Nam Sat Nam Sat Nam Sat Nam Whahay Guru" in an 8-beat rhythm (1 beat for each "Sat Nam," 1 beat for "Whahay," and 1 beat for "Guru). The sounds of "Sat" and "Nam" are the same as in the first mantra, and the word "Whahay" is "wha" and feels like the word "water" in the mouth without the "ter." "Hay" sounds like the word that is the correlate of straw with a long "a."

The first mantra is a very rare mantra that is usually not taught openly but given only by a great Brahmin to his best disciple. However, there is no possible harm in teaching it to cancer patients or to anyone. This mantra is chanted during the time of cremation of a great sage, as well as when one wants to command one's own consciousness to higher consciousness.

Other Therapies Relevant to Cancer

The techniques below were taught by Yogi Bhajan. Techniques 1a and 1b were taught to the author in private.

1a. Technique for Stimulating the Immune System for Treating Malignant Tumors

In ancient times, yogis taught this technique for treating malignant but not benign tumors. It was first published in 1991. It was said to be a direct means of stimulating the immune system to treat tumors (ie, solid tumors). No claim was made for its use in the treatment of cancers of the blood where no single tumor site exists.

Description of Technique

Before doing this technique, it is best to practice technique 1b. It should be attempted just after the last 3 long deep breaths are taken in 1b. On the last exhale, attempt to hold the breath out fairly completely, but relaxed, for a minimum of 1 minute. This does not mean that every ounce of breath must be expelled from the lungs, only the majority of the air. Again, sit with a straight spine and keep the eyes closed. The longer the breath is held out, the better the effect is thought to be. With practice, 3 minutes can be reached. The minimum time to achieve the desired effect is 1 minute before the nervous system recognizes this critical signal. Since this is done by volition, no panic is experienced. The practitioner realizes he or she can quit at any time if desired. But only part of the brain recognizes this control. Another part of the brain, according to yogis, triggers an "emergency reset button" in the hypothalamus to engage and stimulate healing systems. This procedure can easily be practiced 3 times per day. This technique should not be practiced by pregnant women beyond 4 months.

1b. Technique for Energizing the "Pranic Body" and Expanding and Integrating the Mind

This technique is a useful precursor for technique 1a and makes the practice of that technique much easier to perform for the minimum critical time of 1 minute. This technique was first published in 1991¹⁹ and is also useful for energizing the body in general and can be useful for fighting fatigue. It is especially useful to help expand awareness and integrate normal brain functions.

Description of Technique

Sit with a straight spine and close the eyes. Bring the mental focus to the area where the root of the nose meets the eyebrows (the third eye point). Relax the hands in the lap. Begin breathing through a curled tongue that is extended out of the mouth. The sides of the tongue are curled up, and the tongue then makes a U shape. Break the inhale into 8 equal parts. Then bring the tongue into the mouth, close it, and exhale in 8 equal parts through the nose. Do not pause after

completing the full inhale or full exhale. Continue the cycle: 8 parts in through the curled tongue and 8 parts out the nose, taking about 10 seconds for 1 complete round. If desired, try using the sounds "Sa," "Ta," "Na," "Ma" (2 times on inhale and 2 times on the exhale) instead of counting 1, 2, 3, 4, 5, 6, 7, 8 for each part of the breath. Mentally pair the sound of the breath with each of the different syllables in the proper sequence, or just mentally listen to the sound of the breath itself. If one cannot curl the sides of the tongue up in this fashion, take the inhale only through the nose in 8 parts, keeping the mouth closed, and exhale out the nose in 8 parts. Curling the tongue is a genetically determined ability. If one can curl the tongue in this way, it will supposedly help stimulate the thyroid and parathyroid glands. Start with 3 to 5 minutes, build the time up to 10 to 15 minutes, and then up to 31 minutes maximum. On completing this technique, take at least 3 long, slow, and deep breaths through the nose and then relax (or immediately perform technique 1a).

2. Meditation Technique to "Get the Body to Recognize a Cancer"

Yogis understood that sometimes the body does not recognize a cancer because of a distraction caused by trauma, shock, or serious upset. Supposedly, this disconnection can happen with healthy people. But when the body recognizes the cancer, it fights the cancer. Needless to say, it is not exactly clear when this technique should be applied given the individual circumstances of a patient.

Description of Technique

Part A. Sit with a straight spine, either on a chair or on the floor. The elbows are out toward the sides, and the hands are in front of the body at the heart center level in front of the chest. The index (Jupiter) fingers and middle (Saturn) fingers of both hands meet in the center, and the tips of the fingers (index against index, middle against middle) touch. Then the hands extend straight out in front of the body in a forward-moving motion (maintain fingertips touching) and the elbows lock out, and the spine collapses into a slouch posture with an exhale of the breath through an Oshaped mouth. Then inhale through an Oshaped mouth, bring the hands back in front of the chest, and sit in an erect posture. The eyes remain closed during this technique. It should be practiced for 11 minutes.

Part B. Sit very straight. The elbows remain at the sides, and the hands are up with palms facing each other and fingertips at ear level. Then breathe through the O-shaped mouth very slowly and deeply in

and out. The eyes again remain closed. Time equals 11 minutes.

Part C. The hands are interlaced lying on the heart center area of the chest. While holding this posture, find the tumor by "feeling it" in the awareness. Breathe through the nose very slowly while maintaining awareness of the tumor. Supposedly, this makes the connection the body did not make before, which allowed the cancer to grow. Continue this technique for 11 minutes.

3. Technique for Fighting Leukemia

The yogic claim is that this technique is helpful in cases of leukemia and to cleanse the blood. This technique is practiced while sitting in a cross-legged posture and can also be practiced while sitting in a chair while keeping the spine straight. The hands are resting on the knees, and the thumb tips touch the respective index fingertips. The eyes are closed and focused at the third eye, the area where the nose meets the forehead between the eyes. Inhale through the nose in either 3, 4, or 5 equal parts while filling the lungs. This means that the breath is inspired with either 3, 4, or 5 equal parts. (Note that if choosing to do 3 parts for the inhale, then maintain 3 parts throughout. These instructions do not imply that one can or should alter between 3 and 4 or 5. Start with one and then continue with that pattern throughout.) Then with the lungs filled, chant aloud the mantra "Whahay Guru, Whahay Guru, Whahay, Whahay, Whahay Guru." Continue this for 2 hours and 31 minutes. Then finish by maintaining a straight spine while putting the left hand behind the back with the palm facing outward (facing away from the back) at the level of the heart center, but the back of the left hand touches the back. The right hand is resting on the chest, in the middle at the heart center, with the palm against the chest. And the following mantra is chanted in the Laya yoga mode: "Ek Ong Kar-a, Sa-ta Nam-a, Si-ri Wha-a -Hay Gu-ru." The navel point is pulled in sharply on "Ek." On each highpitched "a" sound (pronounced like "u" in "but"), where the hyphen is before the "a" or at the "-ta," the diaphragm is pulled up so the rib cage lifts. On "-Hay," the diaphragm and stomach relax. Low-pitched "a"s are pronounced as in "father." When chanting, visualize the energy spinning from the base of the spine upward through the top of the head to infinity. Continue for 3 to 11 minutes. This first part of this meditation can and very likely will make the patient/ practitioner very "spacey," so much so that during the practice of it (during the inhale phase or exhale phase), the practitioner can forget what he or she is supposed to be doing at that point. This is normal, and this "spacey" tendency will vary throughout the

practice. The time of 2 hours and 31 minutes for the first part is the maximum and recommended time and the time claimed to have the maximum benefit. Obviously, this is near impossible for a beginner, and each individual must start at the level that they find to be reasonable. The effects of this technique are also very "bliss-like" and can take an individual into a state of ecstasy with a profound sense of transcendence. This effect usually motivates the individual to increase the practice time and to continue with some regularity.

4. Meditation to Balance Red and White Blood Cells

While this technique was not said to be specific for cancers alone, it could be applied for patients in whom red and white cells are out of balance. The yogic claim is that this technique helps to balance the distribution of red and white cells and that this balance is intimately involved in the proper functioning of the immune system. The meditation was taught to be done once a day for 11 minutes and for 40 consecutive days to help reestablish balance.

Description of Technique

Sit with the spine straight in an easy cross-legged posture or in a chair with both feet flat on the ground. With the right elbow bent and relaxed near the right side of the body, raise the right hand up to the side as if taking an oath. The index and middle fingers of the right hand are pointed up, and the other 2 fingers are curled down under the thumb. The left hand has the same hand posture (*mudra*) but has the 2 outstretched fingers touching the heart center midway between the nipple areas. Make the outstretched fingers as straight as possible. The eyes can either be closed or open and focused on the tip of the nose. Holding these hand postures, breathe slowly through the nose only, meditatively, and with control, taking the breath mentally from the nose up to the third eye point and then down to the heart where the fingers of the left hand touch. Continue for 11 minutes (not longer or shorter) and then inhale and exhale 3 times deeply and completely relax.

5. Technique for Fighting Blood Diseases

Again, this technique was meant to help any disease of the blood, which could include leukemia or other cancers of the blood system, or to improve immune functions.

Description of Technique

Sit with a straight spine either on the floor or in a chair, but if sitting in a chair, keep the feet flat on the ground. The palms are touching lightly, palm against palm (fingers pointing up and away from the body at a

60° angle to the ground), at the center of the chest, and the arms hug the ribs. The eyes are open and focused on the tip of the nose (the end one cannot see). The mouth is open, and the breath is through the mouth with 4 equal strokes (4 equal parts to fill the lungs, ie, one fourth lung capacity is taken with the first part/step of the breath, etc, until the lungs are filled) while mentally concentrating on 1 syllable of the 4-part mantra "Wha Hay Gu Ru," with each of the 4 strokes of the breath and concentrate as the air crosses the tongue tip, which is near the opening of the mouth (it is not extended out, nor is it in its normal resting place in the mouth; the tongue tip touches the outer edge of the lower lip). Exhale through the mouth with 4 equal parts, again concentrating on the mantra and as the air crosses the tongue tip with each stroke. Begin by practicing this technique for 5 minutes and resting for 1 minute, and then repeat it for 5 minutes and rest for 1 minute; again, repeat it for 5 minutes and rest for 1 minute for a total of 18 minutes. In time, this technique can be practiced with preparation for 1 hour a day, and it is claimed that if it is practiced for 18 minutes a day, it will help rejuvenate the body and that it helps purify and oxygenate the blood.

Case Histories

Managing the Fear of Death: Rapid Onset of Relief Using KY Meditation

In 1990, I had my first opportunity to test technique 8 for "managing fears." I tried it with a woman, age 38, who asked me if there was anything I could teach her that might help with the terrible fear of death that she was experiencing. This breast cancer patient had metastases in the liver, brain, bones, and lungs. Her breathing was labored due to the infiltration in her lungs, and consequently she lived in a fairly constant state of anxiety due to a shortness of breath. She knew she was going to die soon but had a severe fear of her death, and she claimed that the fear was due to the fact that she had a daughter, age 14, who would then be left with the biological father who had joint custody (the women's first husband). This caused her tremendous anxiety and fear. When she came to see me, she brought her second husband who wanted to observe. I taught her to "tune in" (technique 1), and then we proceeded to try technique 8. When she finished, the husband said "Honey, I have not seen you smile in 2 to 3 months." She replied, "All of my negative thoughts were changing to positive thoughts." Six weeks later, this woman made her transition.

This case demonstrated rapid onset of relief after a single KY session. It was included in the OCD protocol since OCD patients typically experience fear that ranges from intermittent mild to extreme. It proved useful in the OCD trials, again providing immediate albeit only temporary relief. Patients with OCD soon realized that all they had to do was employ it if fear was severe enough; just knowing this gives them some hope and relief. These experiences suggest the merit of testing this technique both as a potential single therapy and as part of various possible protocols since it is easy to perform even for patients confined to bed.

"Terminal" Prostate Cancer: Long-term Use of KY Meditation

In December 1988, a 49-year-old man presented after undergoing surgery for prostate cancer in late October 1988. Prior to his diagnosis, he was very healthy and very athletic, training regularly for longdistance runs and bicycle events. During a routine physical exam, an enlarged and irregular prostate was observed, and a biopsy was positive for cancer. The surgeon suggested removal of the prostate. However, at the time of surgery, due to the apparent involvement of a number of lymph nodes, 4 of which had already ruptured, the surgeon decided to close without removing the prostate. The surgeon then told the patient that he had a life expectancy of about 2 to 5 years. Following consultations in 4 different institutions with differing opinions for treatment, the patient decided that some "alternative" modality might be a helpful addition to standard medical care. When I saw him in late December 1988, I taught him virtually all of the KY (see techniques below) that I thought could be useful and practical for his situation. He also then decided independently to start a very strict macrobiotic diet. His view was that "both may help strengthen my immune system." In addition, he gave up the long-distance athletic training on the suggestion that it might be too stressful for his immune system. He also decided at that time to pursue radiation therapy and chose to have it localized to only the prostate during January through March 1989, although the doctors suggested radiation for a much larger area that included the regions of the affected lymph nodes and surrounding areas. His prostatespecific antigen (PSA) declined from 29 to 3 over the first half of 1989 and remained normal and then gradually began increasing above normal in the fall of 1991. He began small-dose hormone therapy in July 1994 as his PSA had increased to 20. A bone scan in 1994 showed some evidence that the cancer had spread to the bones. After his PSA declined sharply again and remained stable for some time, it began increasing and rose to the high 20s before he started lupron in early 1999. His PSA returned abruptly to normal and remained normal with intermittent hormone therapy until this therapy began to fail in 2003, with PSA increasing to 39. He began chemotherapy (Taxotere and Estamustine) in January 2004. His PSA then dropped to 1.5 in September 2004. During the entire time since December 1988, he had only a few colds and 1 bout of flu and had not suffered any significant side effects from radiation or hormonal therapy, although he had frequently suffered from colds and flu in the past. During his radiation therapy in February 1989, he came to me for his second visit because he said he was having some discomfort when moving his bowels. I taught him a technique called *Sat Kriya* that is used in KY to help "strengthen" the nerves in the lower abdominal region. The mild discomfort quickly subsided even during the course of radiation therapy.

This patient's KY practice and interaction with me consisted of the following. At the time of the first meeting (December 1988), I taught him techniques 1a and 1b in "Other Therapies Relevant to Cancer." In addition, I taught him a 15-part KY exercise set called the "Elimination and Circulation Kriya," which is quite demanding and can take at least 50 minutes without rests in between exercises. Rests are not recommended for healthy individuals, but a 15-minute rest period is suggested on completion. The rationale for inclusion of these exercises was the metastasis to the lymph system and the rupture of 4 nodes. The traditional claim for this exercise set is the following: "It is intended to totally clean out residual toxins in the muscles, inner organs, and lymph glands. Approach the series with enthusiasm and vigor, and the results will be a new surge of vitality and energy in every body cell." At that initial visit, I also taught him technique 5 above, called "Technique for Fighting Blood Diseases," and a left-nostril "breath of fire" (kapalabhatti) technique claimed by Yogi Bhajan to help stimulate the immune system for antiviral and antibiotic activity. This technique is described in a review on "unilateral forced nostril breathing techniques."26 He would practice the technique only on days when his left nostril was not occluded, that is, not during the right-nostrildominant phase of the nasal cycle. 27,28 The nasal cycle is an endogenous autonomic rhythm averaging several hours in which nasal airflow alternates dominance between the left and right nares. However, most individuals do not find it difficult to breathe through the left nostril during the right-nostril-dominant phase of the nasal cycle. This patient may have a partial chronic occlusion that made this exercise too difficult during the right-nostril-dominant phase of the cycle. While the technique can be practiced for 15 minutes maximum, he employed it for a "minimum of 50 minutes per week, and generally 60-70 minutes per week." No report was made of the actual frequency of practice. The patient stated he has practiced this since December 1988. Regarding 1a and 1b, in July 2004, the

patient states "I used to do it 3 times per day, now just once. Every day without fail, I hold my breath out at least 2 minutes, generally 2 minutes 20 seconds, sometimes up to 3 minutes. I do it as long as I can each time (I don't intentionally stop before 3 minutes)." In October 2004, the patient said, "I do 1a and 1b now only 2 or 4 times per week due to a lack of time." His practice of 1b is 11 minutes each time. Regarding the frequency of practice of the "Elimination and Circulation Kriya," he states that "this was practiced every day for 3 years. Now I do it 3 times per week. And I also do a short set on 3 additional days that consists of 3 minutes for 'triangle pose' [also called the "downward dog" in some yoga schools], and also 2 other exercises from the Elimination and Circulation Kriya." In addition, he says, "I have done back exercises for about the last 4 years daily which include some yoga exercises (25) minutes daily). And I also do Fighting Blood Diseases [technique 5] for 7 minutes twice a week."

He concludes, "The positive: At each step of the way I have had more success with each of the medical treatments compared to expectations. And at no time have I had any pain or symptoms (except, of course, for the side effects of the treatments). I continue with the yoga exercises and the macrobiotic diet." I saw this patient formally on 2 occasions: the initial visit in December of 1988 and in February 1989. He has not sought consultation for further instruction. Once or twice a year, he sends a report about his PSA and use of conventional modalities. He has continued to work full-time and lead a very productive academic and family life. This patient has taken the approach of integrative care and has played a major role in determining the course of his own treatment.

Conclusion and Commentary on Techniques and Practice

While KY techniques have proven to be highly effective in the treatment of OCD 10-15 and show nearly twice the efficacy rate when compared to conventional treatments for this otherwise "recalcitrant disorder," 12 only future studies can determine how useful these techniques can be for cancer patients. However, there is no a priori reason to believe that psycho-oncology symptoms would not be susceptible to KY techniques, at least with those patients who are physically capable of performing them. Those who are more challenged by their respective health problems will of course face greater difficulties that will vary widely with patients. Regardless of the patient population, or even with healthy normal individuals, there is always an initial period during which the person must learn to perform the techniques correctly and then be able to implement them for the prescribed time(s) or

substantial times. Nearly all individuals find some techniques easy, and others, for various reasons, find some much more difficult or extremely difficult. Comparatively speaking, the KY techniques described above are not difficult, but some training is required. Their practice over time may be best met by meeting in groups. Some individuals appreciate the support of a group, and others do well on their own. The second case history above is an excellent example of selfdirected use of KY techniques. It should also be noted that substantial relief and benefit can be acquired during the first training event, one of the hallmarks of KY techniques. The most common challenge is to get individuals to practice regularly and independently. Cancer patients may be more motivated than some populations when individuals realize the immediate relief and benefit that can be achieved through practice, especially if the patient has a strong desire to lead a "normal" life. Again, the second case history is an excellent example of this desire. In my experience, in various disorders, I find that about 50% to 70% of patients usually titrate their suffering to an acceptable degree where they can easily manage their symptoms and feel comfortable. Another 25% to 35% are committed to completely overcoming their symptoms and/or disorder. Another factor in treatment is the patient-therapist interaction, and much depends on the integrity of this relationship. Thus, there is both a science and an art to therapeutic care here, as there is with any modality of treatment today.

When considering the 5 techniques in "Other Therapies Relevant to Cancer," it is impossible to make any claims about efficacy. Clearly, with technique 3 for "Fighting Leukemia," one immediately wonders how a leukemia patient can practice a technique that requires 2 hours and 31 minutes plus 3 to 11 additional minutes. This technique obviously requires a significant period of time for practice for the full prescribed time. However, this technique is not difficult per se. There are no difficult postures or other aspects that complicate practice here, and even initial practice times of 31 minutes or less will produce a very pleasant result that is likely to encourage continued and enhanced practice times. It should also be noted that even partial practice times for many of the techniques here would still yield an initial pleasant result. The long 7-part psycho-oncology protocol may also offer substantial initial benefits with significantly shorter practice times. The amount of well-being that can be achieved with practice here is very likely to inspire the patient to comply more fully over time. However, there are obviously many caveats to this approach to therapy. For example, the issues of guilt, shame, and regret that lung cancer patients may have if they are or were smokers must be carefully noted as

Shannahoff-Khalsa

possible complicating factors in treatment. A breathing technique, for those who perceive their cancers to be the direct result of their own behavior, may itself create conflict for these patients. Many patient populations will require very careful training, care, and inspiration when taught to use KY meditation techniques.

In summary, these techniques deserve serious consideration for the treatment of psycho-oncology symptoms, for palliative care, and for cancer symptomatology and progression. However, only adequately controlled clinical trials can help us understand what if any benefit these techniques may offer cancer patients. It is hoped that the novel content of this article will inspire the necessary clinical trials.

Acknowledgments

Financial support for the Khalsa Foundation during the preparation of this article was provided by the Baumgartel DeBeer Family Fund.

References

- National Institutes of Health. State-of-the-science conference statement: symptom management in cancer: pain, depression, and fatigue, July 15-17, 2002. J Natl Cancer Inst Monographs. 2004:32:0-16
- Pirl WF. Evidence report on the occurrence, assessment, and treatment of depression in cancer patients. J Natl Cancer Inst Monographs. 2004;32:32-39.
- Kessler RC, McGonagle KA, Zhao S, et al. Lifetime and 12month prevalence of DSM-III-R psychiatric disorders in the United States: results from the National Comorbidity Survey. Arch Gen Psychiatry. 1994;51:8-19.
- Massie MJ. Prevalence of depression in patients with cancer. J Natl Cancer Inst Monographs. 2004;32:57-71.
- Lawrence DP, Kupelnick B, Miller K, Devine D, Lau J. Evidence report on the occurrence, assessment, and treatment of fatigue in cancer patients. J Natl Cancer Inst Monographs. 2004;32:40-50.
- Glaus A, Crow R, Hammond S. A qualitative study to explore the concept of fatigue/tiredness in cancer patients and in healthy individuals. Support Care Cancer. 1994;5:82-96.
- 7. Richardson A. Fatigue in cancer patients: a review of the literature. *Eur J Cancer Care*. 1995;4:20-32.
- Van't Spijker A, Trijsburg RW, Duivenvoorden HJ. Psychological sequelae of cancer diagnosis: a meta-analytical review of 58 studies after 1980. Psychosom Med. 1997;59:280-293.
- 9. Voogt E, Van Der Heide A, Van Leeuwen AF, et al. Positive and negative affect after diagnosis of advanced cancer. *Psychooncology*. In press.
- Shannahoff-Khalsa DS, Beckett LR. Clinical case report: efficacy of yogic techniques in the treatment of obsessive compulsive disorder. *Int J Neurosci.* 1996;85:1-17.
- 11. Shannahoff-Khalsa DS. Yogic meditation techniques are effective in the treatment of obsessive compulsive disorders. In:

- Hollander E, Stein D, eds. *Obsessive Compulsive Disorders: Etiology, Diagnosis, and Treatment.* New York, NY: Marcel Dekker; 1997.
- Shannahoff-Khalsa DS, Ray LE, Levine S, Gallen CC, Schwartz BJ, Sidorowich JJ. Randomized controlled trial of yogic meditation techniques for patients with obsessive compulsive disorders. CNS Spectrums: Int J Neuropsychia Med. 1999;4(12):34-46.
- Shannahoff-Khalsa DS. Kundalini Yoga meditation techniques in the treatment of obsessive compulsive and OC spectrum disorders. *Brief Treatment and Crisis Intervention*. 2003;3:369-382.
- Shannahoff-Khalsa D. An introduction to Kundalini Yoga meditation techniques that are specific for the treatment of psychiatric disorders, JAltern Complement Med. 2004;10:91-101.
- Shannahoff-Khalsa DS. Kundalini Yoga meditation for the treatment of OCD. 65E, pp 130-131. Syllabus and proceedings summary. Symposium 65: new research and novel therapeutic strategies for OCD. Abstract presented at: 156th American Psychiatric Association Annual Conference; May 17-22, 2003; San Francisco, Calif.
- Rapoport JL. The waking nightmare: an overview of obsessive compulsive disorder. J Clin Psychiatry. 1990;51:25-28.
- Hwang SS, Chang VT, Fairclough DL, Cogswell J, Kasimis B. Longitudinal quality of life in advanced cancer patients: pilot study results from a VA medical cancer center. J Pain Symptom Manage. 2003;25:225-235.
- Bhajan Y. The Master's Touch: On Being a Sacred Teacher for the New Age. Espanola, NM: Kundalini Research Institute Publications; 1997.
- Shannahoff-Khalsa DS. Stress technology medicine: a new paradigm for stress and considerations for self-regulation. In: Brown MR, Koob G, Rivier C, eds. Stress: Neurobiology and Neuroendocrinology. New York, NY: Marcel Dekker; 1991.
- Bhajan Y. Survival Kit: Meditations and Exercises for Stress and Pressure of the Times. Espanola, NM: Kundalini Research Institute Publications; 1980.
- Bhajan Y. Self Experience: Kundalini Yoga as Taught by Yogi Bhajan.
 Espanola, NM: Kundalini Research Institute Publications; 9000
- 22. Kaur WG. Chattra Chakra Varti. Espanola, NM: Ancient Healing Ways. Available at: http://www.a-healing.com/16079.html.
- 23. Shannahoff-Khalsa DS. Sounds for transcendence: yogic techniques for opening the tenth gate. In: Pratt RR, Spintge R, eds. *MusicMedicine II.* St. Louis, Mo: MMB Music; 1996.
- Shannahoff-Khalsa DS, Bhajan Y. The healing power of sound: techniques from yogic medicine. In: Droh R, Spintge R, eds. *MusicMedicine*. St. Louis, Mo: MMB Music; 1991.
- Shannahoff-Khalsa DS, Bhajan Y. Sound current therapy and self-healing: the ancient science of Nad and Mantra Yoga. *Inter*national Journal of Music, Dance, and Art Therapy. 1988;4:183-192.
- Shannahoff-Khalsa DS. Unilateral forced nostril breathing: basic science, clinical trials, and selected advanced techniques. Subtle Energies and Energy Medical Journal. 2001;12:79-106.
- Werntz DA, Bickford RG, Bloom FE, Shannahoff-Khalsa DS. Alternating cerebral hemispheric activity and the lateralization of autonomic nervous function. *Hum Neurobiol*. 1983;2:39-43.
- Shannahoff-Khalsa DS. Lateralized rhythms of the central and autonomic nervous systems. Int J Psychophysiol. 1991;11:225-251.