

Complimentary Effect of Yogic Sound Resonance Relaxation Technique (MSRT) in Prostate Cancer: A Case Study

Vijayakumar PS¹, Sahana AU²

Abstract: Prostate cancer, the most prevalent malignancy in men all over the globe, kills more men than any other cancer. The mean age of patients with prostate cancer is 72–74 years, and about 85% of the patients are diagnosed after the age of 65[1], Studies have shown that conventional treatment methods with chemotherapy and radiation for Prostate cancer (PCa) may be inadequate. Yoga techniques have been found to be effective complimentary therapies in cancer management and also for stress reduction[2], We present a case of Prostate Cancer, which was treated for three years with MSRT (Mind sound resonance technique) provides deep relaxation for both mind and body by introspective experience of the sound resonance in the whole body while repeating the syllables A, U, M and Om and a long chant (Mahamrityunjaya mantra) several times in a meaningful sequence[9], in this case, MSRT was directed towards alleviating symptoms and to reduce the tumor size. This study shows the cases of prostate cancer may be successfully managed with yoga techniques.

Keywords: MSRT – mind sound resonance technique, prostate cancer

1. Introduction

Prostate cancer (PCa) is the second most common cause of cancer and the sixth leading cause of cancer death among men worldwide. The worldwide PCa burden is expected to grow to 1.7 million new cases and 499 000 new deaths by 2030 simply due to the growth and aging of the global population [3]. Prostate cancer has become a major health problem in industrialized world during the last decades of the 20th century contributing to three fourth of the registered cases across the globe [4], prostate cancer is considered manageable with a wide range of treatment options. Unfortunately, these prostate cancer therapies tend to significantly affect a man's physical and psychological well-being, by eliciting harsh side effects, both acutely and long-term [2]. Cancer and its treatment are often associated with prolonged adverse physical and psychosocial symptoms, including reduced physical function and fitness and increased risk of anxiety, depression, and fatigue. This greatly impacts the patient's quality of life (QoL). Therefore, there is a need for effective methods to manage physical and psychosocial symptoms and to improve QoL of cancer patients and survivors.

2. Presenting Complaints

A 64 year old Indian male with no history of smoking or alcohol, presenting with complaints of weakness, leakage of urine, low hemoglobin count and a prostate tumor of size 2.2 cm² was admitted to Arogyadhama (A holistic health center). Clinical findings indicated that patient was diagnosed with enlarged prostate of 6.1*6.0*5.5cm and a volume of 109gms. A rounded heterogeneous mobile mass measuring 5.2*5.6cm was spotted in the bladder lumen, post void residue being 219cc. the biopsy report indicated a diagnosis of prostate cancer with metastasis. The score on the Gleason scale pointed to a 9 indicating it to be an advanced aggressive form of cancer. Bilateral Orchiectomy was conducted which resulted in reduction of haematuria. Tests conducted in February 2014 revealed that the size had

reduced to 2.5*2.7*3.4cm and the volume to 12.9gms. Patient described the process to be extremely painful and depressing. He also expressed that he often experienced bouts of anxiety related to illness and future.

3. Therapeutic focus and assessment

Mind sound resonance technique (MSRT) is one of the advanced guided yoga relaxation techniques that can be practiced in supine or sitting posture for achieving the goal of positive health, will power, concentration and deep relaxation[9] This tool [Table 3] was developed using the concepts from traditional texts that talk about the power of Om (Mandukya Upanishad) and Nadanusandhana (Hatha Yoga Pradipika) for achieving internal mastery over the modifications of the mind (Patanjali's definition of yoga). MSRT opens up the secret of traditional chants called Mantras.

4. Follow up and outcomes

Serum PSA levels and tumor size through ultra sonography were reinvestigated on February 20, 2014. At this time, PSA level was 1.43 ng/mL and tumor size was 2.2 cm². The patient was re-examined, and investigations were repeated periodically that revealed the reduction in both PSA levels and tumor size. The response was noted in this case (Table 1).

Table 1

Date	PSA Value in ng/mL	Tumor size in CM ²
20 Feb 2014	1.436	2.2
22 Apr 2014	0.128	1.98
13 Oct 2014	0.676	3.9
17 Dec 2014	2.464	2.4
18 Feb 2015	6.040	6.46
24 Apr 2015	2.69	6.8
23 May 2015	0.87	5.7
11 Dec 2015	0.149	3
13 Feb 2016	0.110	2.24
24 Apr 2016	0.053	1.75

Volume 7 Issue 4, April 2018

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

26 July 2016	0.049	1.68
1 April 2017	0.112	1.68
1 July 2017	0.02	1.44

PSA: prostate specific antigen, CM²: centimeter square, ng/mL: Nanograms Per Millilitre

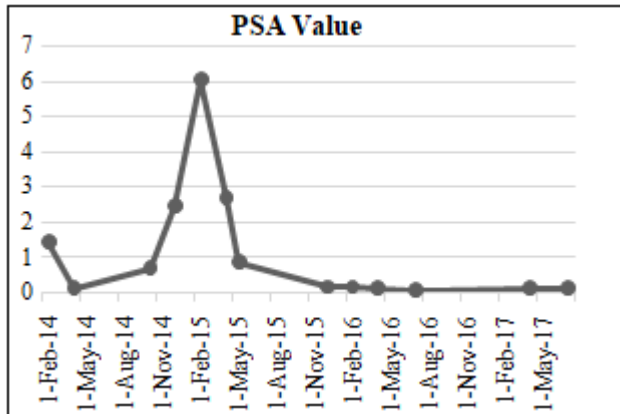


Figure 1: Changes in Prostate specific antigen values.

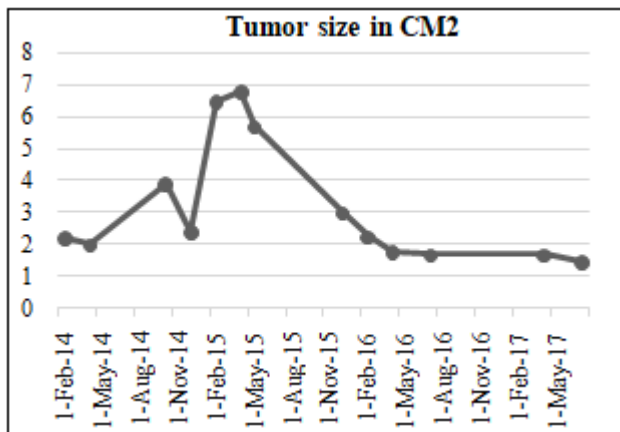


Figure 2: Tumor behavior pattern.

5. Discussion

To explore the possible mechanism recent evidence in yoga and cancer research conducted to date, almost exclusively with survivors of breast cancer, reveals a diverse list of benefits. Several psychological benefits have been noted such as improved mental health, spirituality, mood and emotional function, along with decreased anxiety and depression. QOL improvements were reported in a variety of areas such as fatigue, sleep quality and overall QOL scores [5]. Fatigue is among the most frequently occurring and debilitating complaints associated with cancer and cancer treatments. Therefore, it is important to find effective strategies to reduce fatigue in cancer patients[6], yoga as proven to reduce fatigue in cancer patients[5], based on the review from previous studies conducted in this area found that yoga has large beneficial effects on distress, anxiety and depression, moderate beneficial effects on fatigue, QoL, emotional function and social function[7], Improvement in immune response in early breast cancer patients. These findings offer further support for the tumor reduction effects of yoga. It may be speculated that these effects are facilitated by reductions in stress hormones that constitute the HPA axis. It is becoming increasingly clear from the accumulating evidence that a mere “elevated,” in vivo

cortisol level may insufficiently define “stress” and that changes in its circadian patterns are also important[8], Many recent personal reports abound in support of mantra meditation (including singing) as healing; their experimental verification is awaited. Voiced chanting produces corresponding electromagnetic [EM] expressions in the brain due to piezoelectric nature of cranial cavity. If the voiced intonations are of proper frequency, the cranium will vibrate at resonance frequency and create an EM milieu. This in turn, could produce or preferentially pump biochemicals in and out of brain cells. With proper intonation and proper selection of mantras, it is perhaps possible to cater to any biochemical response in the brain, a study shows that induce differentiation and reduction of tumorigenicity in NT2 exposed cells suggesting a new potential therapeutic use in regenerative medicine[10]. all these finding supports the results found in this case as reduction in PSA levels and tumor size.

6. Conclusion

MSRT appeared to be a feasible intervention, and beneficial effects on several physical and psychosocial symptoms were reported. This MSRT practice was helpful in treating the patient of prostate cancer. Hence, the focus in this area is very important and work so far has thrown the doors of scientific investigation for a whole range of cellular molecular manipulation which could have profound effect in therapies, this approach may be taken into consideration for further treatment and research work for prostate cancer.

7. Patient Perspective

The patient was satisfied with the improvement and he hopes recovery from yoga practices.

References

- [1] Bharat B. Aggarwal (2008) Prostate cancer and curcumin: Add spice to your life, *Cancer Biology & Therapy*, 7:9, 1436-1440, DOI: 10.4161/cbt.7.9.6659
- [2] Raghavendra RM, Nagarathna R, Nagendra HR, Gopinath KS, Srinath BS, Ravi BD, et al Effects of an integrated yoga programme on chemotherapy-induced nausea and emesis in breast cancer patients. *Eur J Cancer Care* 2007;16:462-74. Back to cited text no. 24
- [3] Ferlay et al., 2010, J. Ferlay, H.R. Shin, F. Bray, et al. *GLOBOCAN 2008, Cancer Incidence and Mortality Worldwide: IARC Cancer Base No. 10. International Agency for Research on Cancer, Lyon, France (2010)*
- [4] Perin, 2001, N.N. Perin, *Global variation in cancer incidence and mortality Curr. Sci.*, 81 (2001), pp. 465–474
- [5] Vadiraja HS, Raghavendra RM, Nagarathna R, et al. Effects of a yoga program on cortisol rhythm and mood states in early breast cancer patients undergoing adjuvant radiotherapy: a randomized controlled trial. *Integr Cancer Ther.* 2009;8:37-46.
- [6] de Jong N: Courtens AM, bu-Saad HH, Schouten HC: Fatigue in patients with breast cancer receiving adjuvant chemotherapy: a review of the literature. *Cancer Nurs.* 2002, 25: 283-297.

- [7] Smith KB, Pukall CF: An evidence-based review of yoga as a complementary intervention for patients with cancer. *Psychooncology*. 2009, 18: 465-475.
- [8] Rao RM, Telles S, Nagendra HR, et al. Effects of yoga on natural killer cell counts in early breast cancer patients undergoing conventional treatment. *Med Sci Monit*. 2008;14:LE3-LE4.
- [9] Nagendra HR. *Mind sound resonance technique*. Bangalore: Swami Vivekananda Yoga Prakashana; 2001.
- [10] Lisi A et. al, "Ion cyclotron resonance as a tool in regenerative medicine", *Electromagnetic Biol. Med.* 27 (2), pp. 127-33, 2008.

Table 3: Steps of MSRT

Practice	Duration
Prayer – salutation to the divine (Maha Mrityunjaya Mantra)	1 minute
Quick relaxation technique – observe the abdominal breathing internally with closed eyes	3 minutes
Loud chanting (Ahata) of A, U, M and AUM (three rounds)	16 minutes
Alternate loud (Ahata) and mental (Anahata) chanting of A, U, M and AUM (three rounds)	
Ahata of a long chant invoking fearlessness – Maha Mrityunjaya Mantra (three rounds)	
Alternate Ahata–anahata of Mahamrityunjaya mantra (three rounds)	
Anahata of AUM (three rounds)	
Silence	
Resolve	
Closing prayer for peace	

Author Profile



Vijayakumar PS, BAMS, MD (Y&R), M.Sc. (Psy), Swami Vivekananda Yoga Anusandhana Samsthana (SVYASA), Bangalore, Karnataka, India.



Sahana AU, M.Sc. (Psy), Swami Vivekananda Yoga Anusandhana Samsthana (SVYASA), Bangalore, Karnataka, India.