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Effect of Yoga Treatment for Oxidative Stress in Prostate Cancer Patients

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Abstract

Objective

The onset of pain in cancer patients is prevalent and significant. A subset of cancer patients that have been diagnosed with and treated for Prostate Cancer have developed higher levels of oxidative stress indicators. Oxidative stress indicators can result in inflammatory responses and can diminish the efficacy of the treatment. CAM therapies are part of a multimodal approach used for the management of pain. The aim of this study was to explore the use of yoga therapy as a treatment for reducing oxidative stress.

Methods

A literature review was conducted in PubMed. The search was conducted using the keywords: “Oxidative Stress” “Prostate Cancer Oxidative Stress Indicators” “Yoga Therapy” “Yoga Therapy on Oxidative Stress”. The review was supplemented by authoritative websites.

Results

Patients with prostate cancer have shown to present with high levels of stress and decreased quality of life indicators. These factors can lead to higher oxidative stress and production of ROS which increases the rate of DNA damage and onset of increased inflammatory markers. The use of various yoga therapies has reduced levels of oxidative stress. A particular study demonstrated that the use of Hatha yoga had a significant decrease in the activity of PLA (12.7% reduction; P = 0.010) and POX (22.6% reduction; P = 0.0001) in patients with end-stage renal disease on hemodialysis.

Conclusion

The process of cancer treatment and the associated lifestyle changes are challenging and stressful. Subsequently, patients are experiencing increased levels of oxidative stress. Oxidative stress causes the onset of ROS and inflammatory markers which perpetuate the decrease in quality of life and treatment. The use of yoga therapy as part of a multimodal treatment regimen may help many patients decrease their oxidative stress levels. This decrease could allow for increased quality of life and possibly more effective medical treatment.

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Abstract
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