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Short Communication

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Synergistic Effect of Simultaneous Testosterone Reduction and Selective Killing of Prostate Cancer Cells with Oral Bioavailable Curcumin Capsules May Ensure a Significant Drop in PSA Levels from Abnormally High Levels Due to Confirmed Metastasized Prostate Cancer

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Abstract

In this century there have been 1000s of Pubmed listed publications making multiple claims about the potential health benefits of curcumin found in the curry spice, turmeric. A baby boomer male who was diagnosed with benign prostate hyperplasia (BPH), later after difficulty in urination, constriction of Urethra was treated with urethral catheterization. A year after BPH diagnosis, the PSA rose to 64 ng/ml and bone biopsy revealed prostate cancer cells, at which time a simultaneous combination treatment of Lupron depot and turmeric capsules from a pharmacy, containing curcumin was administered. 6 months after the combination treatment, the PSA level have remained well below average normal, around 0.3 ng/ml and the urination difficulties were resolved. While the noninvasive treatment without surgical removal of the prostate gland, has worked quite exceptionally for the time being, this report and review should be of broad interest for those who are involved in timely care of patients with enlarged prostate due to BPH, prostatitis, prostate cancer, and metastasized prostate cancer.

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Manuscript Goal

The manuscript goal is to contribute to developing the most noninvasive and optimally effective treatment against prostate cancer in patient case, diagnosed with metastasized prostate cancer based on science and work published in respected journals.

Introduction

Aging is a major risk factor for several diseases like Alzheimer's Disease, Heart Disease, Parkinson's Disease, Prostate cancer (PC) to name a few. In 2020, an estimated 375,304 people worldwide died from PC and PC is one of the top 5 deadliest cancers. Incidence increases with age and African American men have a higher incidence of prostate cancer in the USA. Majority of prostate cancer diagnosis occurs in men over 65 irrespective of whether there is a genetic predisposition from inheritance of any alleles with single nucleotide polymorphisms associated with prostate cancer. A digital examination to detect prostate enlargement along with monitoring of prostate specific antigen (PSA) levels in blood was the first line of procedures to diagnose prostate cancer. In most cases it is not until there is prostate enlargement constricting the urethra causing difficulties in emptying the urinary bladder experienced by men over 65 that either a biopsy of the prostate or a prostate MRI gets done. A total of 1, 414 259 new cases of prostate cancer were reported in 2020 globally making prostate cancer a serious condition among baby boomers and aging men. A diagnosis of prostate cancer is accompanied by unique challenges for treatment to prevent the metastasis of the prostate cancer to bone and to other parts of the body. There are multiple treatment possibilities like surgical removal of the prostate, partially or completely or localized radiation treatment of the prostate cancer cells, if the prostate cancer cells have not metastasized. But if the prostate cancer cells have metastasized via the lymphatic circulation, then there are limited options to prevent proliferation of the cancer cells by treatment that will diminish testosterone levels to cause indirect hormonal castration in men. Such indirect treatment does not destroy cancer cells in the prostate and those metastasized to other locations like bone. Any treatment of confirmed prostate cancer is best monitored by periodically checking PSA levels. There is no standard of care currently that can cure metastasized prostate cancer but the right to try natural products like turmeric capsules with bioavailable curcumin to selectively target programmed cancer cell death in combination with FDA approved treatment to reduce testosterone levels with Lupron depot (leuprolide acetate for depot suspension) injection could open a whole new avenue of treating aggressive metastasized prostate cancer before it hastens death [1,2]. Curcumin also has anti- inflammatory properties due to complement inhibition, which could reduce swelling of the prostate [3]. Problems such as poor

water solubility and bioavailability prevented wide curcumin use as a supplement or complementary medicine but lately over the counter capsules are abundantly available in super markets and health food stores in US and around the world [4].

Large number of observational studies and clinical trials [5], have been done on curcumin, an ingredient of an ancient spice, turmeric and over 6000 publications from around the world are listed in pubmed. To determine whether simultaneous treatment with bioavailable curcumin could provide a benefit due to a synergistic and enhancing effect with FDA approved Lupron for prostate cancer treatment was attempted.

Method and Results

A prostate MRI confirmed human prostate cancer case of a baby boomer with massive rise in PSA level caused by metastasized prostate cancer found in a bone biopsy was monitored. After noninvasive treatment, PSA levels dropped rapidly to normal levels by treatment with a single injection of Lupron depot 45 mg intramuscular injection and simultaneous bioavailable curcumin containing Turmeric (rhizome)(curcumina longa) extract (95% curcuminoids, 950mg) curcumin C3 complex, daily 2 capsules (1000mgs+10mg black 9 pepper (fruit) extract(95% piperine, 9mg) BioPerine . The PSA levels so far remain at low normal for 6 months and the testosterone levels dropped from above normal to low normal (Figure.1). The only side effect that is persistent is slightly below normal hemoglobin and hematocrit level. This unique outcome could provide a basis for a large clinical trial and a close examination of all the published evidence on prior human studies could become standard of reliable care for metastasized prostate cancer.

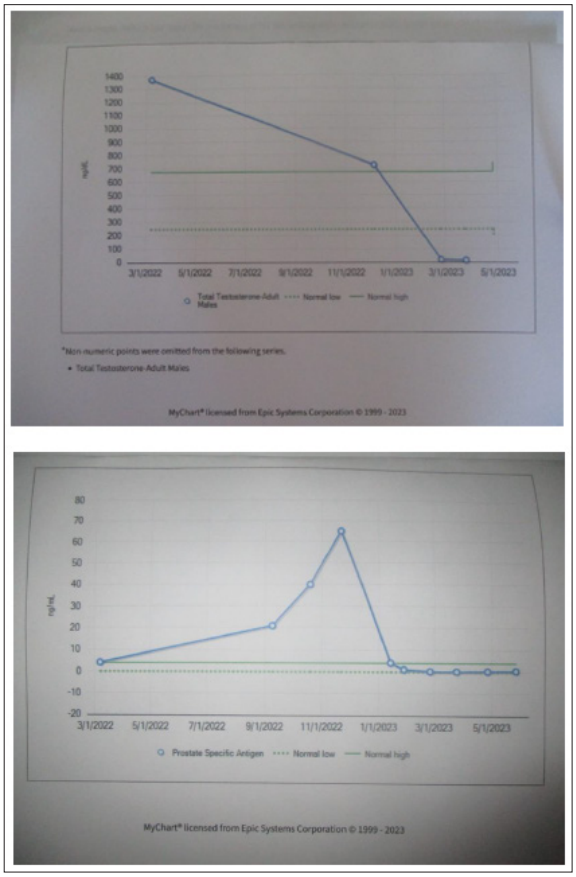

Figure 1: Simultaneous reduction of Testosterone (top) and PSA (bottom) levels with Lupron and bioavailable Curcumin

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