LEUKINE, CYTOXAN, REVLIMID, CELEBREX, PRESCRIBED FOR PROSTATE CANCER

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Disclaimer: Please recognize that I am not a Medical Doctor. I have been an avid student researching and studying prostate cancer as a survivor and continuing patient since 1992. I have dedicated my retirement years to continued research and study in order to serve as an advocate for prostate cancer awareness, and, from a activist patient's viewpoint, to help patients, caregivers, and others interested develop an understanding of prostate cancer, its treatment options, and the treatment of the side effects that often accompany treatment. Readers of this paper must understand that the comments or recommendations I make are not intended to be the procedure to blindly follow; rather, they are to be reviewed as my opinion, then used for further personal research, study, and subsequent discussion with the medical professional/physician providing prostate cancer care.

Leukine is GM-CSF (granulocyte-macrophage colony stimulating factor), a protein secreted by macrophages, T cells, mast cells, endothelial cells, and fibroblasts, and is an important hematopoietic growth factor and immune modulator that has an effect on the functional activities of various circulating leukocytes. GM-CSF is a very potent stimulant to bone marrow, especially to the white blood cells of bone marrow origin, or myeloid cells. As such, it is a very non-specific immune treatment; the myeloid cells, including neutrophils, monocytes, macrophages, and dendritic cells, all increase greatly in number following injection with Leukine®. In theory, a greater number of these cells in circulation and in body tissues may increase antigen presentation to the lymphoid system, or there may be direct action by myeloid cells against cancer. A lengthy discussion regarding the action of Leukine, as well as Cytoxan, Provenge, and other similar drugs, can be reviewed here:

http://tinyurl.com/4jlxw3h

Cytoxan/Cyclophosphamide explained here:

http://www.prostate-cancer.org/pcricms/node/311?id=18608

Revlimid is a medication approved for Multiple Myeloma. It has been experimented with prostate cancer with reasonable effect, though I don't know of very many Medical Oncologists who are willing to go "outside the box" (meaning outside their "comfort" zone) and make use of this drug. This is an expensive medication at around $10.00 per 5mg tablet (see **http://tinyurl.com/yvobe2)**. More in this regard: **http://tinyurl.com/4hh92uh**

Celebrex was produced to ease the effects of arthritis. However, there is a protein involved in cancer cell growth called "akt," and Celebrex has been found to block the action of "akt" that results in causing the death of human prostate cancer cell lines.

Here is the protocol that Medical Oncologist Mark Scholz has used that had reasonable effect when combining it with ADT therapy. By combining I mean that when moving to an off-time from, for example, LHRH agonists and antiandrogens, and while still maintaining with Avodart, the foregoing drugs were employed to see if they provided a more extended time off from the ADT medications:

http://www.prostate-cancer.org/pcricms/node/437

It would be important to first determine if your health insurance would cover the foregoing drugs being prescribed. They are somewhat "out of the box" treatments that top Medical Oncologists specializing in treating recurred and advanced prostate cancer like Scholz, his partner Richard Lam, Stephen Strum, Charles Myers, and Bob Leibowitz have the expertise to use. Likely most general oncologists and most urologists either are unaware of how these drugs can be used or not willing to prescribe them because they don't know enough about their use.

More:

Low Dose Thalidomide (and more regarding Leukine and Revlimid)

If you are considering discussing with your physician treatment with Thalidomide during an off-phase from androgen deprivation therapy (ADT) to extend that off-phase when PSA levels are rising, the email below from a fellow prostate cancer advocate, Jim Waldenfels, provides his experience with this medication accompanied by Vitamin B6. Jim has done extensive research into medications used in his own treatment, and he and I have attended several

conferences on prostate cancer, participated as Consumer Reviewers in the Congressionally Directed Medical Research Program (CDMRP) Prostate Cancer Research Program (PCRP), as well as the 2007 Innovative Minds in Prostate Cancer Today (IMPaCT) gathering of over 100 prostate cancer survivors/advocates along with 600 physicians and research scientists. Obviously, he can be considered a very reliable source of information.

Here is what Jim provided:

"Dr. Leibowitz and his former partner Dr. Tucker had a letter to the editor of the journal Oncology, September 2002, that described their approach and results in a fairly small number of men. I'm sure he has also posted about it at his website. **(MY NOTE: Read a lengthy discourse on Leukine, Revlimid, and Thalidomide by Dr. Liebowitz at:**
http://www.compassionateoncology.org/pdfs/Leukine_and_Revlimid-020408.pdf
or if the foregoing will not open, try:
http://tinyurl.com/4ghuhx)
He also mentioned it in the recording of his talk to the National Conference on Prostate Cancer 2003 in Burbank, California, minutes 37-38. Basically, it involves 50 mg daily of Thalomid plus 300 mg daily of vitamin B6 to help prevent peripheral neuropathy, one of the risks with Thalomid. He says that they see an 80 to 90% drop in PSA in the first two to four weeks on the drug. I wish! For my challenging case, with an intact prostate that was originally packed with cancer - all biopsy cores positive, most 100%, I don't get that kind of drop. Since I have an intact prostate, which more or less recovers during the off-therapy phase, I don't resume treatment at a low PSA level. My target to resume was 10 the first time I did this, and I thought it would be in the 6 to 7 range this second time. It's a longer story, but I'm now thinking again that 10 would be wise.

The first time, after 28 months off therapy (31 months on, starting December 1999), I got a six month extension of the holiday using Thalomid. This second time my oncologist and I thought it best that I go off therapy as soon as I got my PSA below .05. I succeeded in December 2006, after 19 months. I did well off-therapy for 14 months until February 2008, but my PSA had risen to 6.95 in late January. Starting Thalomid on February 6, my PSA dropped to 6.08 on March 6 (the low-point on thalomid this cycle). It bounced around a little in April in the 7 range, partly due to different PSA tests, but the last value was 6.46 on May 21, and I'm happy with that. As you see, I've extended my off-therapy period to 18 months and counting.

You probably would get considerably better results.

My quality of life is very good. There are side effects of Thalomid, which can be countered to some extent. Drs. Leibowitz and Tucker feel that the most serious side effect - peripheral neuropathy - can be prevented by using the low dose of 50 mg coupled with the 300 mg of vitamin B6 daily. They tried different dosing combinations before finding this one that seems to solve the problem. I've experienced no peripheral neuropathy. Thalomid was originally marketed as a sleeping pill (before those horrendous birth defects were noticed), and it certainly gives you a sound sleep. However, it is known for a degree of morning sluggishness. For me that is not pronounced, but it is noticeable, and even coffee does not fully counteract it. Constipation is another possible side effect, but I'm convinced that can be fully counteracted. I exercise regularly, eat a high fiber diet, and get plenty of water, and constipation is not a problem at all. By the way, those are some of the tactics recommended by a site addressing countermeasures for thalidomide side effects that is probably still available under the Cleveland Clinics advice for multiple myeloma patients, many of whom are on thalidomide. There are some other
side effects, such as orthostatic hypotension, but those are the main ones.

Take care,

Jim