Optimal Diets for Cancer Patients: 8 years of cancer survivors' best choices

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In 2014, our clinic completed the longest and largest (up to that date and still as of this writing) interventional study in medical history on sugar intake in cancer patients. It was reported very briefly by 7,000 media outlets around the world, and then as with a lot of new developments, it did not receive further attention. The study involved 317 adult patients, which were all of the cancer patients seen for almost seven years up to July 1, 2013 at our naturopathic cancer clinic. It involved intravenous nutrients for patients staying at least two weeks in our care, as well as a dietary intervention: sweetener restriction. The results were that regardless of the cancer or the stage, those cancer patients who avoided sugar in the diet had more than twice the rate of survival of the sugar eaters. Of those who ate sugar, 36% went into remission; of those who avoided sugar, 90% went into remission.[1]

All previous studies on sugar and cancer were either in mice, or in fewer than 20 human subjects, or retrospective. This was the first long-term interventional study of cancer patients and sugar intake. It is still the largest and longest of that kind published to date.

Criteria for Inclusion

We included all adult patients who had a biopsy-proven malignancy, or a significantly positive PET/CT, and who stayed at least two weeks in our care. We have never rejected patients for being "too sick" or even too well, as long as they had a biopsy-proven cancer. We did have to reject minors, due to highly politicized influences and approaches to the health care of children in the U.S.

Controlled, but not randomized

Medical ethics dictate that with life-threatening illnesses, the patient must be given as much information as possible regarding every available, feasible and potentially successful treatment protocol. And patients must be allowed to make their treatment choices without duress, threats or coercion.

So the patients were not randomized. They chose to have natural treatments or not. If they chose the natural treatments, they were included in our study. They chose to have chemotherapy or not. And they chose to follow our recommendation to avoid sweetened foods or not.

However, they were controlled in that the single independent variable – avoidance of sweetened foods was the variable that we examined (inasmuch as you can control other variables in an outpatient clinic.)

We remember that “in a controlled experiment, no treatment is given to the control group, while the experimental group is changed according to some key variable of interest, and the two groups are otherwise kept under the same conditions.”[2]

Compliance was treated as a dichotomous variable, so participants were considered to be either compliant or non-compliant. Therefore, compliance (or not) is the variable.[3] [4]

All patients in the study received the recommended intravenous nutrients chosen for anti-neoplastic effect. What differed and what was studied was how those who received those IV treatments and avoided sugar differed from those who had those IV treatments and consumed sugar.

The Recommended Dietary Intervention

Sugar in various forms has been shown to worsen the following cancers: pancreatic cancer,[5] [6] [7] [8] breast cancer,[9] [10] [11] [12] prostate cancer,[13] [14] gastric cancer,[15] [16] colorectal cancer, [17] [18] [19] [20] [21] ovarian cancer, [22] [23] endometrial cancer, [24] [25] and liver and biliary tract cancers.[26] [27] Some of this research was published prior to 2006, when we opened our clinic and began to see cancer patients. Therefore, we thought it a reasonable assumption that sugar may very well worsen all cancer. Also, it is generally understood how a PET/CT functions, and that glucose highlights cancer with considerable contrast to normal tissue. Therefore, we asked, and still ask, cancer patients to avoid all sugar and most sweeteners in their diet to the greatest extent possible. Our 2014 paper on this subject details how we defined, and urged restrictions of, dietary sugars.[28]

Optimal Diets for Cancer Patients

Survey of Surviving Cancer Patients regarding Diet

Then in July 2015, our clinic sent a questionnaire by regular US mail to our surviving cancer patients. 97 survivors of cancer filled out the questionnaire and mailed it back in a timely way. No compensation was offered for completing the questionnaire. 477 total cancer patients had been treated at the naturopathic clinic from 2006 through July 2015. These patients had the following characteristics in common: They had a biopsy-proven malignancy or a significantly positive PET/CT; they were of Stage I through late Stage IV, had stayed in our care at least two weeks, and had received at least four intravenous nutrient treatments, over at least two weeks, with the great majority receiving many more treatments and staying several months in our care on average.

Non-responders

111 patients were known to be deceased over the years (from Table I)

Table 1: Summarized outcomes of naturopathic treatment of 379 cancer patients (data as of July 1, 2014).

	Outcome	Number of patients	Average number of months this group of patients stayed for treatments *	Number in each group also receiving chemotherapy	Number in each group also receiving radiation	Number in each group also receiving surgery
a	Remission or assumed remission	175	3.7	12	11	59
b	Still being treated, not yet in remission	22	4.0	1	0	3
c	Died while still only in our care, following all of our protocols	32	2.2	0	1	1
d	Iatrogenic death in hospitals	22	2.7	15	4	7
e	Of those who left before finishing treatment, number who died after leaving (except for DDD)**	45	2.7	2	3	10
f	Death after dietary dispute	12	No data	1	1	3
g	No current information but never known to be in remission	46	1.4	5	1	10
h	Remission occurred elsewhere	8	No data	4	1	0
i	Waiting to know status, or conflicting information	17	No data	5	2	6
	Total	**379**		**45**	**24**	**99**

***This column has not been updated since 2010, due to the labor-intensive nature of this research, and not much expected change or significance of any change.**
**** Please see legend of abbreviations at the head of Table 1 in the larger data paper[29]. For example, DDD: death after dietary dispute.**

4 more were reported recently deceased by their widowed spouses acknowledging the questionnaire, but none of the 4 spouses filled it out.

We called some of those cancer survivors who did not respond to the questionnaire. Of the first 20 whom we were able to contact, we recorded their responses.

Of the first 20 contacts:

- 7 said that they never received the questionnaire.
  - 2 of those said that they had been travelling and did not receive any mail. (We sent it in early July 2015, which happens to be at a time when many Americans, particularly Arizonans are traveling.)
- 4 said that they saw it, but it had gotten lost or discarded.
- 9 said that they still had it, but that they had not had time to fill it out.

The Questionnaire

Confidential Questionnaire for Cancer Patients and Cancer Survivors who have been treated at NatureWorksBest Cancer Clinic, Tempe AZ

Name (or initials if you prefer) _____ Age _____Sex _____

In a few words or sentences, how have you been since you last visited our clinic?

_____

_____

We are looking into some different areas of research this year. Please help us figure out risk factors for cancer, so we can look into what we can do to reverse them.

Back when you had cancer (or if you still have it), what was your primary cancer type? _____
Stage (at its worst) _____

Current situation: Active cancer _____ Remission _____ Cure _____ Not sure _____

Please check all that you have had in the past.

Conventional treatments: Chemotherapy _____ Radiation _____ Surgery _____
Naturopathic treatments: IV nutrients _____ 3 months _____6 months _____ 7 + months ____
Ozone: _____ Other treatment (please specify) _____

Please circle any of the following foods/drinks/supplements that you now have <u>at least 3 times per week.</u>

RO water	Alkaline water	Spring water
Coffee	Black tea	Green tea
Cheese	Milk or cream	Yogurt or kefir
Poultry	Red meat	Fish
Vegan	GMO-free / Organic	Fast food
Onion	Garlic	Raw salads
Bread / pizza / crackers	Pasta	Rice
Desserts	Soda	Candy
Vegetable juicing	Baking soda	Fish oil
Enzymes	Probiotics	Fiber
Vitamin D	Vitamin A	Turmeric

Other supplements (please specify)

_____

Do you physically exercise? _____How many times per week?_____

How many root canals do you currently have? (Estimate, please) _____

Any current or past toxic exposure? (please specify) _____

Limitations of the Study

Many of our clinic's cancer survivors went into remission a long time ago. They can say fairly accurately what kinds of foods they eat now. But they may not remember so clearly what they ate before or during or closely following the cancer episode. We asked if specific foods were eaten 3 or more times per week. One reason for the small fraction of responses out of our total survivors is the difficulty for a person with a varied diet to answer accurately even a straightforward question such as "Do you eat onion 3 or more times per week?" How about garlic? Can any reader of this paper answer that question easily, unless they deliberately avoid such foods?

Another problem is that optimists are hard to compare with pessimists. We found that, regarding the question about current disease status, whether in remission or with active cancer, most people answered consistently with their imaging. However, a patient with no tumor burden for 4 years, and another with no tumor burden for 8 months claimed "active cancer." Both are breast cancer survivors, with no blood markers, exhaustively imaged, especially due to their

insistence. On the other hand, another patient with a palpable, large, resectable, biopsy-proven breast tumor, who refused surgery, claimed "remission." Clearly each of these three were mistaken. So part of our job is trying to help patients to have a realistic understanding of their condition.

Another limitation of pooling optimists together with pessimists is that when you interview a cancer survivor in remission, they usually fall into one of these two categories:

Type 1: "If I beat cancer, I can beat anything." This type has a sense of immortality and invulnerability. "I can eat whatever I like, and still beat cancer." They generally don't bother with dietary restrictions, and they eat as they please.

Type 2: Cancer gave them the scare of their lives, and they will never go back to eating "junk food." Their diet is now as clean and wholesome as they can make it. The only problem here is that one person's wholesome diet is not at all like another person's wholesome diet. There are paleo vs vegan debates, organic vs not organic debates, high fat vs low fat debates, etc., battlegrounds in the great American food fight.

Table 2:
Results of 97 Study Participants

Active cancer	33
Remission	43
Cured*	21
TOTAL	**97**

*Although the word "cured" is avoided in medical circles, patients in remission from cancer for several years or more often choose to use this word. Because we report on the results of a patient questionnaire, we use this word, not as physician assessment, but rather in quotation of the patients who choose to use it.

Table 3:
Patients with Active Cancer

Still in treatment	10
Treatment failed	11
Stopped treatment	6
Came out of remission	6

TOTAL	33

Table 4:
How Are You?

Excellent	17
Very good	13
Good	35
Okay	22
Bad	10
TOTAL	97

Table 5:
How Are You? In Remission or Cured

Excellent	88%*
Very good	77%
Good	78%
Okay	50%
Bad	20%

***** 88% of those who feel excellent are in remission. 77% of those who feel very good are in remission, etc.

The data in Table 5 revealed the surprising results that of those who say they feel excellent, only 88% are in remission or cured. 12% of those feeling excellent have active cancer. Also, at the opposite extreme, we see that of those in remission, 20% feel "bad." We have often seen that when cancer is very active in the body, it creates a lot of co-morbidity, involving structural damage to organs and bones and other tissue that are painstakingly repaired afterward. Some of this damage lingers much longer than the cancer and is difficult or impossible to repair, often harder to repair than eliminating active cancer.

For this reason, we continually remind patients and the public to consider effective treatments for cancer early on, before such structural damage or metastasis can take effect. For almost all of our patients, we would have liked to meet them a year or more earlier than we did. Their ultimate remission from cancer would be more certain with earlier intervention.

Focus of Our Research

We are keenly interested in the "Goldilocks" cohorts of cancer patients. We examine in detail below various cohorts of survivors that enjoy a high rate of remission.

What characteristics of diet and lifestyle do they share? What combination of past treatments and present dietary choices do they have that we can learn from? Perhaps if we look at these successful people and the choices that they have made, then we can get a clearer picture of a profile of a cancer survivor. If such a profile (or profiles) can be emulated by our patients, perhaps we can have a higher rate of survival from this relentless epidemic.

In the following tables, we show data from our database. We looked at combinations of treatment and dietary factors that resulted in a pool with a very high rate of remission. The following combinations appeared to be correlated with the best results. In descending order of rate of remission, we present these combinations as follows:

Table 6:
100% claiming remission or cured
100% of the people doing the following are considered in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	Exercise
Stage ≤ III	Vitamin A
Surgery	Vitamin D
	Black tea

Table 7:
100% claiming remission or cured
100% of the people doing the following are considered in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	Black tea
Stage ≤ II	Vitamin A

Table 8:
93% claiming remission or cured
93% of the people doing the following are considered in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	Exercise
Stage ≤ III	Vitamin A
	Vitamin D
	Turmeric
	ONION
	Raw salad

Table 9:
81% claiming remission or cured
81% of the people doing the following are considered in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	Exercise
Stage ≤ III	Vitamin A
	Vitamin D
	Turmeric
	NOT INCLUDING ONION

Table 9 is the same as Table 8 (93% remission) but without including onion.

Table 10:
92% claiming remission or cured
92% of the people doing the following indicated in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	Exercise
Stage ≤ III	Vitamin A
	Vitamin D
	Turmeric
	Onion
	Raw salad
	GARLIC

Table 11:
90% claiming remission or cured
90% of the people doing the following are considered in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	Vitamin A
Stage ≤ III	With or without Vitamin D
Surgery	

Table 12:
100% claiming remission or cured
100% of the people doing the following are considered in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	Exercise
Stage ≤ III	Vitamin A
	$NaHCO_3$

Table 13:
86% claiming remission or cured
86% of the people doing the following are considered in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	Exercise
	Vitamin A
	Vitamin D
	Turmeric
	Onion
	Raw salad
	Garlic

Table 14:
83% claiming remission or cured
83% of the people doing the following are considered in remission or cured:

PAST	**PRESENT ≥ 3 times per week**
IV nutrients	(without including exercise)
	Vitamin A
	Vitamin D
	Turmeric
	Onion
	Raw salad
	Garlic

Discussion

Certain combinations of treatment and dietary choices seem to more prevalent than others among cohorts of cancer patients with high rates of remission. This study focuses on results that include the most successful cancer survivors, in order to be able to learn from them and to emulate them, rather than results with medium or poor outcomes. However, the choices made today by a cancer survivor are not necessarily the factors that got them into remission. This means that the food and lifestyle combinations listed in the tables above may or may not be optimal combinations of interventions for long-term survival of cancer, although they are included in the diets of the most successful groups of survivors.

"Cure" is a word that is avoided by health care providers at our clinic, but many patients chose to use this word, after enough time in remission for them to feel confident about their ongoing good health.

Tables 13 and 14 include those with less than ideal circumstances, i.e. all stages, with or without surgical resection. Yet even these tables show a high rate of remission with certain combinations of current interventions, which may be useful information for a cancer patient who is burdened with a late stage and / or unresectable cancer.

Onions and Vitamin A and baking soda may be generally underappreciated, outside of our clinic, for their role in the diet of cancer survivors.

Patients in Stage $\leq$ III are generally more likely to achieve remission than patients in Stage IV. However, for all patients, certain dietary combinations may be more helpful than others in achieving and maintaining remission.

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