

Making Decisions About Cancer Treatment

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Making Decisions About Cancer Treatment

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Disclosures

- Xymogen
 - Board of Advisors
 - Own some shares in company (< 1%)
- American Bioscience Inc.
 - Small honorariums for occasional lectures
- Maitake Products, Inc.
 - Will support trip to Japan with honorarium this summer to lecture about CAIM and Cancer
- Natural Source (Producers of Beljanski products)
 - Rare support for lecture

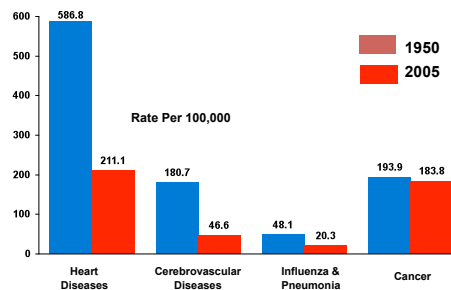
Tools

- In Syllabus and also available at www.schachtercenter.com
 - Brief summary handout of Dr. Schachter's views on Cancer and CAIM
 - Cancer Reading List
 - Cancer Website List
 - Avoid and To Do List

Most CAM Presentations on Cancer:

- Assume conventional treatments as a given
- Attempt to show how various nutritional and other CAM therapies can be compatible with conventional treatment, which is considered the gold standard
- Don't really question the entire approach to managing cancer
- Although, we'll show that compatibility exists between conventional and CAM, we'll also question many aspects of the entire oncology approach

Change in the U.S. Death Rates* by Cause: 1950 & 2005



* Age-adjusted to 2000 US standard population.
Sources: 1950 Mortality Data - CDC/NCHS, NVSS, Mortality Revised.
2005 Mortality Data: US Mortality Data 2005, NCHS, Centers for Disease Control and Prevention, 2006.

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Conventional Cancer Therapies

- Surgery
- Radiation Therapy
- Chemotherapy
- Hormonal or anti-hormonal therapies (like Tamoxifen, Arimidex or Lupron)
- Monoclonal antibodies inhibit one of the steps of the cancer process (like Herceptin or Avastin); Newest drugs (there are many)

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Focus of Conventional Cancer Treatment

- Destroy cancer cells at all costs
- No emphasis on lifestyle, good nutrition
- Patients often told to avoid all nutritional supplements, as they might interfere with conventional treatment
- Measure progress by tumor shrinkage—Not a good measure of progress

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Conventional Oncology Treatment

- Influenced by pharmaceutical, high tech companies and FDA policies
- Oncologists often won't look at possible treatments that fall outside of their paradigm
- Cancer specialists-frequently too authoritarian; often bully & threaten patients

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Drawbacks of Radiation and Chemotherapy (4 Negative Factors)

- Carcinogenic
- Mutagenic
 - More mutations increase cancer aggressiveness
 - Recurrent cancers harder to treat
- Immune suppressive (damage protective cells)
- Cause significant adverse side effects, both short term and long term

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Integrative Evaluation of the Cancer Patient

- Focus on patient as a person
- Assess strengths and weaknesses
- Evaluate support system
- Full clinical history & physical examination for many practitioners (MD, DO, PA-C, NP, etc)
- Assess current lifestyle factors
- Assess patient's ability to make changes
- Nutritional and Laboratory testing

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Integrative Laboratory Testing for the Cancer Patient

- Complete routine labs
- Check certain nutrients levels (especially vitamins A and D, selenium, others)
- Check heavy metal toxicity (levels of lead, cadmium and mercury)
- Check appropriate cancer markers (e.g. CEA, CA19-9, CA27-29)
- Check for immune function

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Integrative Cancer Therapies May Include-1

- Dietary suggestions-cornerstone-organic food (reduced toxins-increased nutrients-phytonutrients as information)-Quillin-Raw, Live Food Organic diet
- Avoid poor quality food and toxic exposures (See my website: Avoid & To Do List)
- Lifestyle changes-Exercise-Stress Management-Sunlight Exposure-Sleep
- Oral nutritional supplements

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Integrative Cancer Therapies May Include-2

- Detoxification-Bowel, Liver, Skin, Saunas
- Injectable treatments-C drips, B17
- Energy treatments-Homeopathy, Acupuncture
- Attempt to deal with attitude, stress and spiritual elements
- Help with decisions relating to conventional treatment

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What Questions a Patient or Support Person Should Ask?

- Likelihood survival time will be increased (Clinical response is NOT so important)
- Likelihood quality of life will be improved
- Risks associated with the treatment:
 - Morbidity
 - Mortality
 - Secondary cancers

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Example: Standard of Care for Stage I & II Breast Cancer

- Lumpectomy
- Radiation therapy
- Chemotherapy in most cases
- Anti-hormonal therapy if cancer is estrogen receptor positive
- Possible monoclonal therapy drug (like Herceptin) if HER2/Nu positive
- Can look at all of these, but we'll focus on radiation

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Radiation and the Treatment of Breast Cancer A Cancer Decisions® Report (Ralph Moss)

- Reduces risk of a recurrence in the same breast
- Does NOT reduce regional recurrence or distant metastases
- No impact on overall survival with increased deaths from causes other than breast cancer.
- Harmful effects (e.g. heart damage, lymphedema) may occur later
- See: www.cancerdecisions.com for report

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Should Radiation be Automatic for Breast Cancer?

- So, should women automatically accept radiation for breast cancer after lumpectomy; we see many patients who refuse radiation and do intensive integrative program after lumpectomy
- Might radiation actually reduce the positive effects of a good integrative treatment program? We don't know, but this is a real possibility.

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Radiation for Prostate Cancer

- No evidence that radiation improves survival for prostate cancer; Where is evidence based medicine?
- Should we be doing radiation for prostate cancer?

J. H. Wasson, C. C. Cushman, R. C. Bruskwitz, B. Littenberg, A. G. Mulley Jr and J. E. Wennberg
Department of Community and Family Medicine, Dartmouth Medical School, Hanover, NH. A structured literature review of treatment for localized prostate cancer. Prostate Disease Patient Outcome Research Team. Archives of Family Medicine, Vol 2, No. 5, 1993

Adolfsson, J, Steineck G, and Whitmore WF. Recent results of management of palpable clinical localized prostate cancer. Cancer, 1993, Vol 72, 310-322.

J. E. Johansson, et al. Fifteen-year survival in prostate cancer. A prospective, population-based study in Sweden; JAMA, Vol. 277 No. 6, February 12, 1997

Iversen P, Madsen PO, Corle DK. Radical prostatectomy versus expectant treatment for early carcinoma of the prostate: twenty-three year follow-up of a prospective randomized study. Scand J Urol Nephrol Suppl. 1995;172:65-72.

Bill-Axelsson A, Holmberg L, Ruutu M, et al. Radical prostatectomy versus watchful waiting in early prostate cancer. N Engl J Med;352:1977-1984; 2005.

Merglen A.; et al. Short-and Long-term Mortality With Localized Prostate Cancer; Arch Intern Med, Oct 2007; 167: 1944 - 1950.

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Other Cancers Where Conventional Treatments are Questionable

- Radiation and chemotherapy for Non-Small Cell Lung cancers
- Chemotherapy for colon cancer
- Chemotherapy for bladder cancer
- Radiation and chemotherapy for uterine or cervical cancer
- Chemotherapy for melanoma
- Chemotherapy for renal cancer

Helping Patients Make Decisions-1

- Patients, not doctors, should make decisions
- Decisions are individualized and must consider untold number of variables
 - Nature of the disease
 - Available conventional and alternative treatments and likelihood of success based on information available
 - Orientation of patient
 - Scope of practice of practitioner
 - Supports, both financial and personal
 - Many others

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Helping Patients Make Decisions-2

- Explain influences of current practice
 - Orientation of conventional medicine
 - Financial incentives for caregiver
 - Cultural milieu
- Need to spend time with patient
- Practitioner should not be dogmatic or attack conventional practices, but explain
- What would the practitioner do in this situation? What would you recommend for family member?
- Encourage patient to learn stress management, as fear interferes with judgment

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Helping Patients Make Decisions-3

- Go over limitations of monitoring with scans (reducing tumor size not necessarily associated with improved survival)
- How will monitoring occur (patient's symptoms, physical examination, cancer markers, limited scans)
- Be aware that attacks from professionals and licensing boards may occur both to licensed MDs and other health care givers who raise issues about conventional treatment

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Integrative Therapeutic Approach for Cancer Patients

- Go to basics of nature and nurture
- Power of food to harm or heal- overlooked by medical practitioners and consumers alike.
- Role of nutrition in preventing cancer recognized for decades (Thousands of research articles; Recognized: NCI, ACS, AICR)
- But, role in healing cancer-ignored by oncologists-cancer organizations
 - Susan Silberstein PhD; www.beatcancer.org

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Move Toward Nature

- “Whatsoever is the father of disease, poor diet is the mother.” (Chinese Proverb)
- “All mankind needs for health and healing is provided in nature.” (Paracelsus, Father of pharmacology)
- “Natural forces within us are the true healers. Let thy food be thy medicine and thy medicine be thy food” Hippocrates: The Father of Medicine

Estimates of CA deaths avoidable by dietary change (from NCI)

• Prostate	75%
• Colon/rectum	75%
• Breast, Pancreas	70%
• Endometrium, Gall Bladder	50%
• Stomach	35%
• Larynx, bladder, cervix, mouth	20%
• Esophagus, lung	20%
• Other types	10%
• Overall estimate	32%

Effects of Dietary Change on Diagnosed Cancer

- Avoidance of malnutrition
- Minimization of treatment side effects
- Optimization of cytotoxic effects
- Protection of healthy tissue
- Healthy cell proliferation
- Immune enhancement
- Hormonal changes

Effects of Dietary Change on Diagnosed Cancer

- Growth factor modulation
- Angiogenesis inhibition
- Stimulating apoptosis of cancer cells
- Increasing longevity
- Improved quality of life
- Increase in energy, appetite, elimination, reducing pain
- Influence on disease outcome
- Prevention of recurrence
- Patient empowerment

Culture of Life vs. Culture of Death

- What we eat and how we live speaks to our genes. We, by what we eat and how we live, can either degrade our phenotypic expression and activate the cancer (diabetic) process or improve our phenotypic expression for the prevention and reversal of cancer (diabetes).

Adapted from: *There is a Cure for Diabetes* by Gabriel Cousens, page 146

Culture of Life vs. Culture of Death-2

- Move away from a global and personal Culture of Death, to embrace the Culture of Life.
- Choosing to live in a way that promotes life and well being for oneself as well as the planet.
- Diet that is organic, largely vegan, at least 80 percent live-food, high in mineral content, a cuisine that is sustainable for the duration of one's life, and prepared and eaten with love.

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Axioms of the Culture of Death

- It is the position of the American Dietetic Association that all foods can fit into a healthy eating style. (ADA Position Statement)
- All foods and beverages can fit into a healthy diet. (National Soft Drink Association)
- Policies that declare foods “good” or “bad” are counterproductive. (Grocery manufacturers of America)

T. Colin Campbell: The China Study

- “Carcinogenesis is turned on by animal protein and turned off by plant protein, even if cancer has already been initiated.”
- Animal protein is associated with metastatic spread and stimulation of hormone dependent cancers
- Milk (growth factors) stimulate all kinds of cancer growth

Sugar, Insulin, IGF and Cancer

- Sugar ingestion leads to insulin release
- The more sugar eaten, the higher the levels of insulin in the body
- Obesity and lack of exercise increase insulin and IGF levels
- High levels of insulin and IGF may be causative for cancers of the breast, colon, prostate, endometrium and pancreas
 - Kaaks, R. Proc.Nutr. Soc 2001, Feb 60(1) 91-106

Epigenetics and Cancer

- Epigenetics refers to how our environment affects gene manifestations
- With cancer pro-cancer genes are switched on and anti-cancer genes are switched off
- The typical American diet upregulates cancer genes and downregulates anti cancer genes
- The organic, raw, vegan diet upregulates anti-cancer genes and downregulates procancer genes

Poorly Feeding our Genes

- Despite the myths we have been told and sold, we are not by genetic constitution Mars-Bar eaters, Super-Big-Gulp drinkers or Big-Mac snackers, nor do we suffer from a deficiency of these junk foods. None of us is suffering from a deficiency of Red Dye #40, Blue Lake #5, MSG, aspartame or any of the other excitotoxins that have been deliberately placed in our foods to seduce and addict us for profit. (Gabriel Cousens)

Oncologists say:

- Told to eat opposite of cancer prevention diet: high protein, high fat, high calorie diet
- Doesn't matter what you eat
- Eat plenty of calories to maintain weight
- Eat a “balanced” diet
- Supplements will interfere with conventional treatment
- BUT, we have lots of evidence that diet affects survival—not just occurrence of cancer

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How To Feed Our Genes

- For millions of years, we have been physiologically, biochemically and genetically designed to eat a diet of organic living plant foods. The overwhelming medical, sociological, and historical data corroborate this. Food is a fundamental way that we interface with our home the living planet, with our cultural ancestry (which existed without diabetes), and is a most important and subtle way we acknowledge an association of dissociation with who we truly are. (Gabriel Cousens)

Quotation of Sir William Lane of the Royal Surgeons of London

- “Cancerous cells will only grow in a suitable soil, and soil is provided by the prolonged action of toxins in the tissues.”
- Toxic Terrain: Acid pH of tissues, pesticides, wrong fats, sugar, free radicals, lack of oxygen, stress, lack of drainage
- Healthy terrain: Alkaline pH; trace minerals, plant oils, pure water, antioxidants, phytonutrients

Pasteur on his Deathbed

- “Let terrain, c’est tout.”
- The terrain is everything
- Louis Pasteur to Pierre Jacques Antoine Bechamp
- Cancer treatment is similar
 - Do we try to kill every cancer cell? OR
 - Do we work on the terrain?

Goals of Integrative Treatment of Cancer Patients

- Selective agents that inhibit or kill cancer cells, but do not harm normal cells
- Treatments that strengthen rather than weaken the body and the body’s defenses against cancer

Eight Clusters of Procancer Events John Boik

- 1-Gene mutations and genetic instability
- 2-Gene expression (Switching on and off)
- 3-Abnormal signal transduction
- 4-Abnormal cell to cell communication
- 5-New blood vessel formation-angiogenesis
- 6-Invasion into tissues
- 7-Metastasis to other organs
- 8-Immune suppression and other forms of immune evasion

Natural Compounds in Cancer Therapy-2001

Examples of Interactions of Natural Compounds & Anti-Procancer Events

- Curcumin
 - Inhibits PTK, PKC, NFkB, PGE2 synthesis
 - Inhibits invasion enzymes
 - Stimulates or supports the immune system
- EPA
 - Inhibits PKC and PGE2 synthesis
 - Stimulates or supports the immune system
 - Inhibits invasion enzymes

John Boik: *Natural Compounds in Cancer Therapy (2001)*

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Examples of Interactions of Natural Compounds & Anti-Procancer Events (2)

- Vitamin D3 (1,25 Dihydroxy D)
 - 9 possible anti-cancer effects
- Melatonin
 - 15 possible anti-cancer effects
- Vitamin A
 - 13 possible anti-cancer effects
- Boswellic Acid
 - 15 possible anti-procancer effects

John Boik: *Natural Compounds in Cancer Therapy (2001)*

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Small Cell Lung Cancer Survival with Nutrients & Conventional Rx

- 18 non-randomized patients with small cell carcinoma of the lung
- Treatment included chemotherapy and radiation
- Given high doses of vitamins, minerals and fatty acids
- End point was survival over time
- Followed for 6 years
- Death rate compared to SEER survival statistics

Jaakkola, K. et al. Treatment with Antioxidant and Other Nutrients in Combination with Chemotherapy and Irradiation in Patients with Small-Cell Lung Cancer. *Anticancer Research*, Vol. 12, Page 599, 1992.

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SEER Program

- The United States' National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program

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Dosages of Vitamins, Minerals and Essential Fatty Acids-Jaakkola Study

Vitamins and Fatty Acids	Dosages
Retinol Palmitate (Vitamin A)	15,000 to 40,000 IU
Beta Carotene	10,000 to 20,000 IU
Alpha Tocopherol Acetate (Vitamin E)	300 to 800 IU
Thiamin Hydrochloride (Vitamin B1)	150 to 750 mg
Pyridoxine HCl (Vitamin B6)	200 to 1,140 mg
Cyanocobalamin (B12)	30 to 1,600 mcg
Nicotinamide (Vitamin B3)	150 to 400 mg
Vitamin D	400 to 1,000 IU
Ascorbic Acid (Vitamin C)	2,000 to 5,000 mg
Calcium Pantothenate (Vitamin B5)	50 to 300 mg
Biotin	300 to 1000 mcg
Essential Fatty Acids	5 to 65 Grams

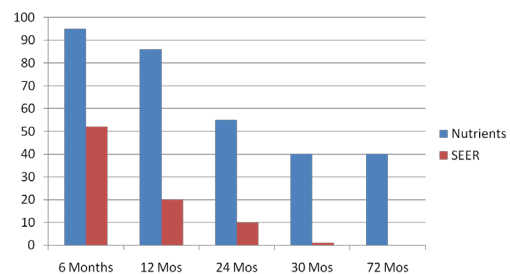
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Minerals Used in Jaakkola Study

- Calcium
- Magnesium
- Zinc
- Manganese
- Selenium
- Copper
- Chromium
- Vanadium

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Small Cell Lung Cancer-Survival Statistics



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Conclusions from Jaakkola Study

- Antioxidants and other nutrients given to small-cell lung cancer patients along with conventional treatment drastically improved long-term survival
- “(There) were no side effects observed (from nutrients)”
- “Surviving patients started AOX treatment earlier than those who succumbed”
- “AOX treatment should start as early as possible in combination with chemo &/or radiation”

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Dr. Abram Hoffer's Cancer Studies

Hoffer, Abram. *J of Orthomol.Med.* 15 (4) 2000, 193-200. *Antioxidant Nutrients and Cancer*

See: <http://orthomolecular.org/library/jom/index.shtml>

**Scroll down and click on 2000, 4th quarter
Find Article: Download PDF File
(Articles 1978-2002 Free)**

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Dr. Hoffer's Research Protocol For Cancer Patients

- Received conventional treatment also
- Time measured from first visit with Hoffer
- Endpoint was death or survival at time of inquiry
- 90% of patients were advanced cancer pts
- Control group—patients who Hoffer saw, but did not take program for at least 2 months
- Excluded—all patients who died during first 2 months (those on program and those off)

Hoffer, Abram. *J of Orthomol.Med.* 15 (4) 2000, 193-200.

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Dr. Hoffer's Complementary Cancer Treatment Program—1

- Improved diet—eliminate junk food, low fat, eliminate allergic foods
- Vitamin C—10 to 40 grams daily
- Vitamin B3 (niacin or niacinamide)—300 to 3,000 mg daily
- Vitamin B6—200 to 300 mg daily
- Folic acid—1 to 30 mg daily
- Vitamin E succinate—400 to 1,200 Units daily

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Dr. Hoffer's Research Protocol For Cancer Patients—2

- Mixed carotenoids (carrot juice)
 - Multivitamin
 - Coenzyme Q10—300 to 600 mg daily
 - Selenium—200 to 1,000 mcg daily
 - Zinc—25 to 100 mg daily (some copper)
 - Calcium and magnesium (2:1 ratio)
- See: www.orthomed.org Click on JOM

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Dr.Hoffer's First 131 Cancer Patients Treated From 1976 to 88

Group	Treated	Untreated
Total Number	97	18
Alive at 1 year	77%	28%
Alive at 3 years	56%	16%
Alive at 5 years	46%	5%
Alive at 7 years	39%	0%
Alive at 9 years	34%	0%

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Dr. Hoffer's Cancer Patients Seen Before The End of 1997 (71 Excluded)

Group	Treated	Untreated
Total Number	769	75
Alive at 1 year	72%	24%
Alive at 2 years	48%	12%
Alive at 3 years	37%	12%
Alive at 4 years	30%	8%
Alive at 5 years	23%	8%

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Chemotherapy & Antioxidant Supplementation-Keith Block MD

- 845 peer-reviewed articles and identified 19 clinical trials that met strict inclusion criteria. Most study participants had advanced or recurrent disease, and were administered, various supplements.
- These authors concluded: "None of the trials reported evidence of significant decreases in efficacy from antioxidant supplementation during chemotherapy."

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(2) Chemotherapy & Antioxidant Supplementation-Keith Block MD

- Many studies showed that antioxidant supplementation was associated with "increased survival times, increased tumor responses, or both, as well as fewer toxicities than controls"

Block KI, Koch AC, Mead MN, Tothy PK, Newman RA, Gyllenhaal C. Impact of antioxidant supplementation on chemotherapeutic efficacy: A systematic review of the evidence from randomized controlled trials. *Cancer Treat Rev.* 2007 Mar 14

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Charles Simone MD (Radiation Oncologist and Chemotherapist)

- "Since the 1970s, 280 peer-reviewed in vitro and in vivo studies, including 50 human studies involving 8,521 patients, 5,081 of whom were given nutrients, have consistently shown that non-prescription antioxidants and other nutrients do not interfere with therapeutic modalities for cancer. Furthermore, they enhance the killing of therapeutic modalities for cancer, decrease their side effects, and protect normal tissue. In 15 human studies, 3,738 patients who took non-prescription antioxidants and other nutrients actually had increased survival."

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Charles Simone's References

- Charles B. Simone II, MD; Nicole L. Simone, MD; Victoria Simone, RN; Charles B. Simone, MD. **ANTIOXIDANTS AND OTHER NUTRIENTS DO NOT INTERFERE WITH CHEMOTHERAPY OR RADIATION THERAPY AND CAN INCREASE KILL AND INCREASE SURVIVAL.** PART 1 and 2. *Altern Ther Health Med.* Jan-Feb, and Mar-Apr, 2007;13(1): 22-28; 13(2): 40-7.
- Simone CB, Simone NL, Simone CB II. Oncology Care Augmented with Nutritional and Lifestyle Modification. *J Ortho Mol Med.* 1997; 12(4): 197-206.
- Simone CB. **Cancer and Nutrition, A Ten Point Plan for Prevention and Cancer Life Extension.** Princeton Institute. 2006.

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Do Conventional Treatments Interfere with Alternative Treatments?

- Concern of oncologists: Do alternative treatments interfere with conventional treatments?
- Let's also ask the reverse question?
- Need studies: All Complementary; ½ conventional-unlikely to occur
- Some evidence that some conventional treatments may interfere with the positive benefits of some alternative treatments
- Sometimes they may be synergistic
- Let's review some possible oral supplements

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Supplements to Consider

- Selenium 200 to 400 mcg daily (higher with monitoring)
- Vitamin D3 (2,000 to 5,000 IU or higher daily) with goal of 25 Hydroxy D being 60 to 100 nG/ml
- Omega 3 Fatty Acids as fish oils 2 to 6 gms daily
- Vitamin A 10,000 to 50,000 IU daily with monitoring for toxicity.
- Vitamin E 400 to IU (mixed tocopherols and tocotrienols); Gamma Tocopherol important

Supplements to Consider-2

- Fermented wheat germ extract-1 packet daily in cold water away from meals (For a list of articles that can be downloaded, see: <http://www.avemar.com>. Click on Research
- Pao Pereira Extract 6 to 9 capsules daily (see www.beljanski.com and click on various articles)
- Rauwolfia Vomitoria extract 4 to 6 capsules daily
- Iodine (possibly combined with SSKI) See www.optimox.com and click on iodine research; download articles

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Supplements to Consider-3

- Coenzyme Q10 150 mg to 300 mg or more daily of the most bioavailable
- Enteric coated proteolytic (See Wolf, MD, Max & Ransberger, PhD, Karl. *Enzyme Therapy*, Regent House, Los Angeles, CA, 1972.)
- Maitake D Fraction (and other mushroom extracts)

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Double-Blind Placebo Controlled Study of Vitamin D & Cancer Risk Reduction

- 1,180 postmenopausal women living in the Midwest
- Vitamin D 1,000 IU with Calcium
- Risk of contracting any cancer reduced by 60% after only 4 years compared to placebo; 77% last 3 years

Grant WB, Garland CF, Gorham ED. An estimate of cancer mortality rate reductions in Europe and the US with 1,000 IU of oral Vitamin D per day. *Recent Results Cancer Res.* 2007; 174: 225-34.

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Selenium and Cancer Prevention

- Multicenter, double-blind, placebo controlled trial
- 1312 patients with history of skin cancer
- 200 mcg of selenium (selenomethionine) given per day
- Over 5 years, 50% drop in cancer mortality; 41% drop in incidence
- Decreased cancer risk compared to placebo: Lung 46%; Prostate 63%; Colorectal 58%; Total carcinomas 45%

Clark, I.C. et al. JAMA, 276(24), 1957-63, 1996.

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U.S. Patent 6,355,474
March 12, 2002



Avemar: A truly remarkable natural product

Development initiated many years ago by Dr. Albert Szent-Gyorgyi, a recipient of the Nobel Prize in Medicine.

Produced by a patented process that yields a uniform, consistent all-natural dietary supplement.

More than 100 reports have been written for presentation or publication describing research conducted in the United States, Hungary, Russia, Austria, Israel and Italy.

Validated by the publication of more than 18 peer-reviewed studies accessible by Medline.

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History

- **Albert Szent-Gyorgyi (Hungarian)**
 - Nobel Prize winner for discovering Ascorbic Acid in 1937
 - Loss of wife (breast cancer)
 - Wanted to find a cure for cancer
 - Wheat germ-quinones-and ascorbic acid
- **Otto Warburg**
 - Cancer specific metabolism of sugars
- **Avemar Research-Mate Hidvegi PhD**

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Otto Heinrich Warburg



- **Nobel Prize in Physiology or Medicine 1931**
 “for his discovery of the nature and mode of action of the respiratory enzyme.”

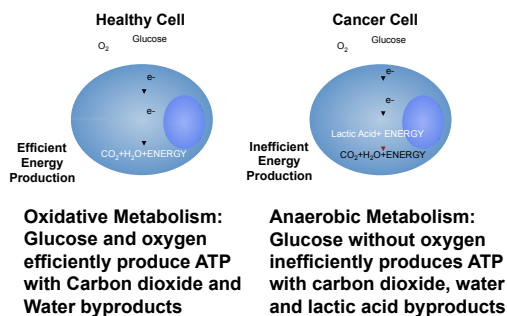


- Cancer cells exhibit increased glycolysis a phenomenon known as the “Warburg effect” and is considered as one of the most fundamental metabolic alterations during malignant transformation.

INTRODUCTION

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Glucose Metabolism



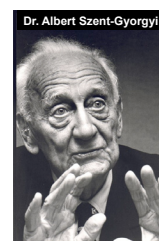
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From Nobel Prize ...
 ...to prized supplement

Dr. Szent-Gyorgyi's interest in cancer therapies resulted from his revulsion over the use of mustard gas derivatives in the treatment of cancer, because of his own battlefield experiences with chemical warfare agents in World War I.

His efforts grew in earnest when both his wife and daughter contracted and died of cancer.

He theorized that naturally occurring compounds called quinones, 2,6-DMBQ and related compounds called methoxy-substituted benzoquinones, when provided in supplemental quantities would help to chaperone the cellular metabolism, and help prevent states of hyper metabolism characteristic of cancer cells.



1937 Nobel Laureate in Medicine

For his part in the discovery of vitamin C, and the mechanisms of cellular metabolism

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Mechanisms of Action of Avemar

- Inhibits glycolysis and enhances aerobic metabolism
- Immune modulation
- Induces apoptosis
- Anti-angiogenesis
- Anti-metastatic
- Inhibits cancerous DNA synthesis

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Controlled study of 170 subjects with primary colorectal cancer



Control Group: Surgery and standard of care (chemotherapy, radiation and other appropriate treatment)

Versus:

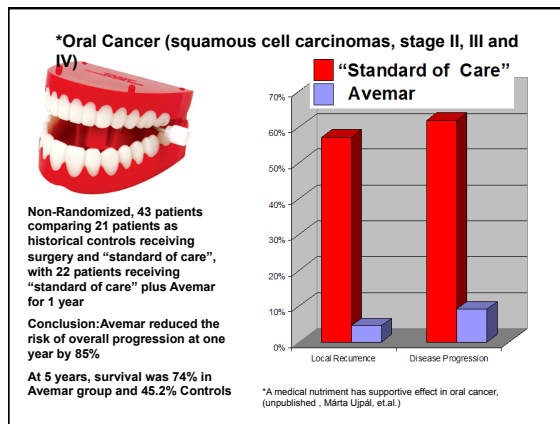
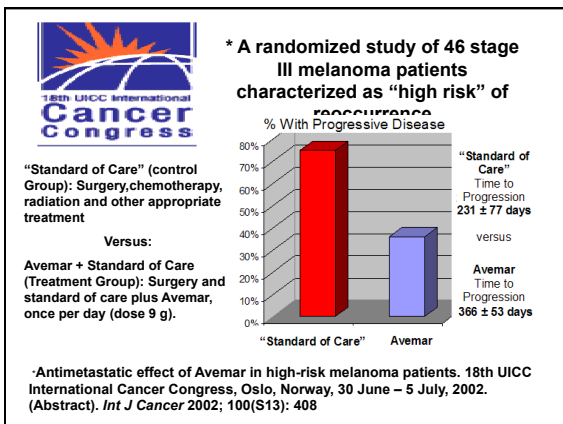
Treatment Group: Surgery and standard of care with Avemar, taken once per day (dose 9 grams daily).

- ✓ 82% reduction in new recurrences (p < .01)
- ✓ 67% reduction in metastasis (p < .01)
- ✓ 62% reduction in deaths (p < .01)

*A medical nutriment has supportive value in the treatment of colorectal cancer, *Br J Cancer* 2003 Aug 4;89(3):465-9. (Patients not randomized, but given choice of treatment)

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Summary

- Avemar inhibits cancer specific metabolism using multiple modes of action
- Synergistic with cytostatics
- Efficacy (in clinical studies) colorectal and oral cavity cancer, melanoma
- Decrease in febrile neutropenia episodes
- Improvement of QOL
- No adverse health effects
- Available for patients in need

Professor Mirko BELJANSKI

50 YEARS OF RESEARCH IN MOLECULAR BIOLOGY

1923 - 1998

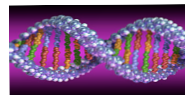


Dr. Schachter's Path to Beljanski Products

- 1999-Bilingual seminar in NYC to discuss the work of the late Mirko Beljanski, biochemist and molecular biologist
- Present were physicians, scientists and patients from Europe-mostly France & Belgium
- Developed interest, read papers & prescribed for patients
- Presented lecture at ACAM 2003
- Wrote an article for Innovation in 2003 describing Mirko Beljanski's work

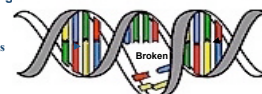
Beljanski's Theory of Cancer

The primary structure of DNA relates to how the nucleotides of each strand line up with each other



Mutations = modifications in one or more nucleotides

Secondary structure of DNA relates to how the two DNA strands line up via hydrogen bonding



Intact hydrogen bonds

Intact hydrogen bonds

Beljanski's Theory is that cancer DNA differs from normal DNA in its secondary structure, rather than only its primary structure

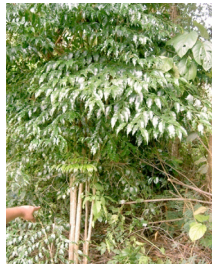
Making Decisions About Cancer Treatment

Michael Schachter, MD

Mirko Beljanski's Theory of Cancer and Practical Applications

- Cancer develops from destabilization of DNA-not just mutations
- Caused by carcinogens disrupting hydrogen bonds between DNA strands
- Developed test to see if substance carcinogenic (the Oncotest)
- Anti-cancer substances-bolt molecules-restabilize DNA

Two Substances with Anti-Cancer Properties

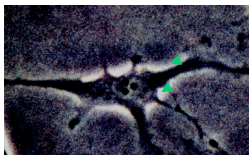


Pao Pereira



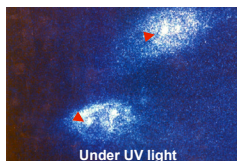
Rauwolfia Vomitoria

Selectivity of Action

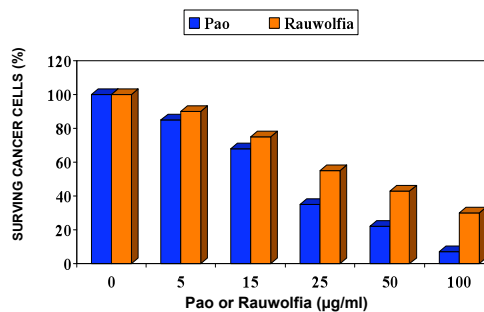


Naturally fluorescent, *Pao pereira* can be seen outside a healthy cell (astrocyte), unable to penetrate its non-porous membrane

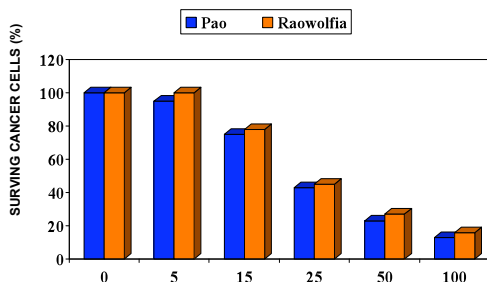
The *Pao pereira* extract can be seen penetrating the cancerous cell (glioblastoma)



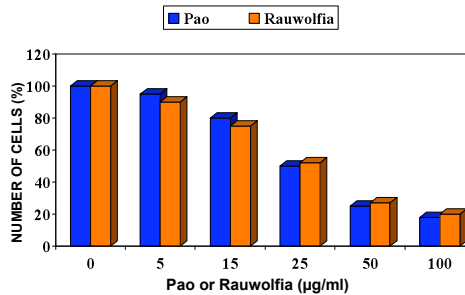
EFFECT OF PAO AND RAUWOLFIA EXTRACTS ON HUMAN LIVER ADENOCARCINOMA CELL LINE (SK-HEP1)



EFFECT OF PAO AND RAUWOLFIA EXTRACTS ON HUMAN THYROID CARCINOMA CELL LINE (TT)



EFFECT OF PAO AND RAUWOLFIA EXTRACTS ON HUMAN BREAST CARCINOMA CELL LINE (ZR-75-1)



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Dr. Beljanski's Products

- Two selective anti-cancer extracts
 - Pao Pereira Extract
 - Rauwolfia Extract
- Extract-reduces damage from radiation-Ginkgo Biloba Extract
- Extract-stimulates production of normal white blood cells and platelets-RNA Primers

Pao & Rauwolfia in Cancer Patients

- Used informally in cancer patients for more than 20 years-France & Belgium
- Frequently combined with conventional Rx
- Many long-term survivors using these products
- Many cancer patients at the Schachter Center are using these products

Recent Research

- Columbia: Aaron Katz MD (Holistic Urologist) testing the 2 anti-cancer herbal extracts in men with rising PSA's with negative biopsies
- Study at Cancer Treatment Centers of America showing that RNA Extract from E. Coli was able to help prevent low platelets and white blood cells in patients receiving heavy doses of chemotherapy

High Dose IV Ascorbate (Vit.C) Drip to Treat Cancer

- Used at our Center-more than 30 years
- Scientific basis increased in 2005
- Mark Levine at NIH-showed high concentrations of Vitamin C killed cancer cells-not normal cells
- Achieved only with IV C infusions (not oral administration)
- Study published in the Proceedings of the National Academy of Sciences (Sept 12-16, 2005)
- Published clinical cases show treatment plausible

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Possible Mechanisms of Action of High Dose IV C for Cancer

- Induces hydrogen peroxide formation in the extracellular space between cells
- Kills many types of cancer cells; but not normal cells
- Dosage of Vitamin C-50 to 100 Grams
- Administered over 2-3 hours
- Dosage based on Vitamin C levels (350 to 400 ng/ml)
- Treatment one to three times a week or more
- Works with some forms of chemotherapy

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Amygdalin=Laetrile=Vitamin B17

- Cyanide containing nitrilside
- Nitrilosides found in many foods-such as prunasin family, millet, buckwheat, apricot kernels
- Structure-2 sugars, benzaldehyde, cyanide
- Non-toxic when molecule intact
- Cyanide and benzaldehyde toxic when released
- Cancer cells have enzymes to release cyanide and benzaldehyde

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Making Decisions About Cancer Treatment

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Amygdalin-2

- Normal cells lack these enzymes
- Normal cell have enzymes to detoxify cyanide and benzaldehyde
- Cancer cells lack these enzymes
- Amygdalin tends to attack cancer cells and leave normal cells alone
- Used orally and as IV infusion
- See Ed Griffin's book: *World Without Cancer* and chapter in Ralph Moss' book: *Cancer Industry*
- See: <http://video.google.com/videoplay?docid=4312930190281243507>

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Helpful Websites

- www.avemar.com
- www.beljanski.com
- www.schachtercenter.com
- www.cancerdecisions.com
- www.breastcancerchoices.org
- www.garynull.com
- www.lef.org

What is Wrong with the System?

- FDA approves drugs
- Physicians focus on approved treatments
 - Ridicule commonsense approaches
 - Heavily influenced by pharmaceutical industry
- Insurance companies pay for approved treatments
- Approved treatments often ineffective, very dangerous and very expensive
- Physicians may be disciplined or lose license for questioning status quo

Early Detection is Not Prevention

- World Health Organization says 70% of cancers preventable with changes in lifestyle and diet (probably conservative)
- No emphasis by cancer establishment of preventing cancer
- Emphasis is on early detection and invasive and dangerous treatments
- Motivated primarily by profits
- Non-profit organizations (like ACS) heavily influenced by industry dollars

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Summary for Patients

- Entitled to make decisions about health
- Best available information should be given about conventional and non-conventional treatment options
- Should be empowered and not be bullied into treatments that may not be best
- Help patients deal with fear and with their conventional oncologists

Summary Regarding Health Care System

- Largely fueled by economics and profits and not always for benefit of patients
- Medical education (both medical schools & postgraduate) heavily influenced by pharmaceutical companies and other medical industrial companies; major conflicts of interest
- Governmental agencies heavily influenced by same companies
- So-called Evidence Based Medicine has many limitations

Making Decisions About Cancer Treatment

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Summary for Integrative Physicians

- Learn available evidence for both conventional & non-conventional treatments
- Spend time with patients to explore options
- Don't automatically except and support what is currently being recommended by conventional oncologists
- Be aware of limitations of "Evidence-Based Medicine"
- Make clear your own biases to patients and indicate what you might do in same situation

The Pain of a New Idea

- As Walter Bagehot once remarked. "The pain of a new idea is one of the greatest pains in human nature... Your favorite notions may be wrong, your firmest beliefs ill founded..." It's a fact of life that people find it easier to believe a lie they've heard a thousand times than a fact they've never heard before.
– Daniel P Reid, The Tao of Sex, Health and Longevity

Aphorisms

- Society is always taken by surprise by any new example of common sense (Ralph Waldo Emerson)
- It is supposed to be a professional secret, but I'll tell you anyway. We doctors do nothing. We only help and encourage the doctor within. (Albert Schweitzer)