STRATEGIES FOR PREVENTION OF CANCER RECURRENCE

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CANCER

- Affects 1/3 Americans at some point in lives,
 2nd leading cause of death after CVD.
- Not one entity, many different etiologies, different therapies. Nurture > Nature.
- Causes are complex, but often there is underlying inflammation.
- Integrative focus: disease not seen in isolation. Focus on "terrain", strengthening it to make it less hospitable to cancer.
- Analogy of garden: keeping soil healthy to prevent "weed" of cancer growth.

INTEGRATIVE APPROACH

- A rational, evidence-based combination of conventional and complementary interventions, individualized, treating cancer actively and then survivorship.
- 65% of people with cancer may be cured; at least 10 million cancer survivors alive in the US alone.
- Conventional oncology approach: surgery, radiation, chemotherapy → life as usual.
- Integrative approach → genetics: constant, all else: we can improve!!

CANCER RISK REDUCTION

- Weight, nutrition, exercise: AT LEAST 35% of all cancers in US related to diet (what we eat and what we don't); smoking linked to at least 30%.
- Two sources of guidelines for measures to reduce cancer risk: American Cancer Society (ACS), and World Cancer Research Fund (WCRF).
- ACS: weight control, physical activity, healthy diet, limit alcohol.
- WCRF: limit energy dense foods, avoid sugary drinks, limit salt consumption, avoid moldy cereals.

NUTRITION

- Anti-inflammatory Diet (Dr. Andrew Weil):
 minimally processed whole foods, rich in
 beneficial fats, vegetables, fruit, whole
 grains, plant-based and healthy proteins; O3
 FA/fish; incorporate spices and Asian
 mushrooms into cooking; antioxidant benefit
 of dark chocolate and tea.
- Water consumption: half ounce/d/pound wt.
- Avoidance of soda/sugary drinks/fast food.
- Avoid processed foods/artificial sweetners..

SUPPLEMENTS TO CONSIDER

- Vitamin D: goal level 40-60 ng/ml, 1,000-2,000 IU common dosing
- Vitamin E: doses less than 400 IU/d as mixed tocopherols and tocotrienols, unless in diet
- Calcium with magnesium 2:1 ratio, unless in diet, especially osteopenia risk
- Omega 3 FA's 1,000 mg/d (EPA + DHA), especially if little in diet
- Mushroom supplement (Reishi, Turkey Tail, Shitake, Maitake)
- · Turmeric/curcumin
- Consider melatonin
- Green tea extract vs dietary
- Whole food multivitamin ("safety net")
- · Breast Cancer: DIM/IC3 vs dietary
- · Prostate Cancer: Lycopene vs dietary

PHYSICAL ACTIVITY

- Obesity is a proinflammatory state: increased risk for many chronic diseases including cancer and cancer recurrence.
- Waist circumference in obesity: > 40 inches in males, > 35 inches in females.
- Strong research evidence: Regular vigorous physical activity is protective against colon, breast, esophageal, kidney, lung, and prostate cancer.
- Also as effective as antidepressants without the side effects!

ENVIRONMENT

- What we are exposed to can affect risk of cancer recurrence.
- · Modifiable environmental risks: pesticides, household cleaners, cosmetics/personal care products/skin creams/shampoos/soaps, microwaved food, use of plastics with potential xenoestrogens (interfere with endocrine system and increased risk of hormonally active cancers), radon exposure and lung cancer, cigarette smoke, pollution, noise pollution, energetically stressful environments.

MIND-BODY THERAPIES

- There is a stong link between stress, compromise of our immune system, and cancer. The mindbody therapies are means of reducing our body's experience of stress, and research demonstrates benefits of these modalities in body chemistry and immune parameters.
- Variety: yoga, meditation, MBSR, hypnosis, guided imagery, Reiki and Healing Touch, Qigong, Tai chi, acupuncture, biofeedback, and many more. Common mechanism is induction of "Relaxation Response", by toning down the "fight or flight" hormones and inducing your own "endorphins".

SPIRITUALITY

- Numerous integrative medicine studies: spiritual and religious beliefs and practices constribute to positive health benefits/stress reduction/increased sense of wellbeing/overall improved survival in a variety of chronic health conditions including cancer.
- Prayer: group prayer for CCU and HIV patients in ICU showed improved outcomes, immune parameters, and survival in prayer group.
- Professional practice experience in cancer treatment: ties in with optimism and better outcome and quality of life.