CAM Therapies

- Cancer treatment and symptom management
- 40-50% of cancer patients utilize CAM
  - Women, educated, higher SES
  - Empowering versus ‘conspiracy’
  - Majority of information from friends/family, media
- Lack of high quality data (especially ovarian CA)
  - Few RCTs
  - Myth versus reality, contradictory data
  - $$$
NIH suggests:

- Alternative medical systems
  - Traditional Chinese medicine, Ayurveda, homeopathy
- Mind-body intervention
  - Meditation, hypnosis, dance/music/art therapy, prayer
- Biological based therapies
  - Herbs, diet
- Manipulative body therapy
  - Massage
- Energy therapies
  - Biofield and bioelectromagnetic (Reiki)
Antioxidants

- Reduce oxidative stress on tissue
  - Vitamin A, C, E, beta carotene, selenium

- May reduce effect of RT and some chemotherapy
  - Anthracyclines and platinum agents work via oxidative actions

- Survey of 219 ovarian CA patients
  - 25% taking antioxidants
  - No survival impact
Cytochrome P450

- Responsible for metabolism of drugs in liver
  - Ifosfamide, tamoxifen, paclitaxel
- Echinacea, garlic, gingko, ginseng, omega-3 FA (fish oil), grapefruit juice, green tea, black cohosh
  - Unknown doses to change efficacy
  - Green tea > 5 cups/day
- Survey of 219 ovarian CA patients
  - 40% taking CYP450 modulators
  - Potential over or under-dosing
  - No survival impact
Acupuncture

- Ancient technique that regulates energy (chi)
  - Acupoints = interstitial connective tissue planes
- Cochrane review of 11 RCTs of 1,247 patients
  - Improvement in CINV, pain scores and PN
  - Potential improvement in insomnia, hot flashes, xerostomia, lymphedema and anxiety
- Very safe
  - Licensed practioner
  - One study of 760K treatments in 97K patients had 6 serious adverse events
  - Monitor for severe neutropenia/thrombocytopenia
**Miracle Cures**

- **Amygdalin (laetrile)**
  - Extract from apricot seeds with cyanide properties
  - Touted as painless alternative to surgery/chemotherapy
  - Cochrane review shows no benefit
  - Banned by the FDA but available on internet

- **Cesium therapy**
  - Torsade de pointes
  - Alkaline diet kills cancer cells
  - Treated water, fresh veggies, legumes, nuts
Sugar

- All cells require glucose
  - So technically, yes, sugar **DOES** feed cancer cells
- Refined sugar should be used in moderation
- No data to suggest sugar consumption = cancer
  - Obesity plays a significant role
Diet & Herbs

- Paclitaxel – Pacific Yew tree
- Vinca alkaloids – periwinkle plant
Green Tea

- Laboratory studies of EGCG and SFN
  - Increase effectiveness of platinum in ovarian CA cell lines
    - Platinum sensitive and resistant
  - Overcome paclitaxel resistance

- Phase II study of 16 patients
  - DBGT used as maintenance after surgery/chemo
  - 11/16 patients recurred within 18 months
  - Trial terminated and deemed not effective
Turmeric/curcumin

- Spice used in Indian/Chinese food - curry
- Anti-inflammatory, CYP 450 modulator
- In vitro data on breast, colon cancer cells, LMS
- Laboratory study showed reversal of platinum chemotherapy resistance in EOC cell lines
- Minimal clinical data
Vitamin D

- Pro-apoptotic, anti-metastatic, anti-angiogenic
- Northern latitudes with higher rates of cancer
  - Sunlight linked to vitamin D levels
- Australian study of 670 women with ovary CA
  - Higher levels of vitamin D at diagnosis correlated with longer survival
  - Causative versus associative?
Selenium

- Anti-oxidant
  - Nuts, tuna, oysters, chicken
- During chemo – less pain/hair loss, higher WBC
- Study of ovarian tumor xenografts
  - Selenium treatment causes reversal of platinum resistance
- Population based study in New Jersey
  - Increased amount of selenium consumption correlated with 60% decreased risk of EOC
  - No decrease with anti-oxidant consumption
Misteltoe

- Extract commonly used in Europe for cancer
- Not FDA approved in US
- Cochrane review 2008
  - 21 RCTs with 3400 cancer patients
  - Major issues with study design of all the trials
  - Most showed improved QOL
  - None had improved survival
Mediterranean Diet

- Olive oil, fish, nuts, red wine
  - Omega 3 FA
- Prospective study of 83K (NHS) over 24 years - 2014
  - 696 cases of ovarian CA
  - 3 different diets – HEI-2005, aMDS, AHEI-2010
  - No difference in outcome
Exercise

- Physical activity linked to improved survival and QOL in breast cancer patients
  - JAMA 2005, prospective study of ~3000 women
  - Equivalent of walking 3-5 hours/week
  - Most effective in HR+ tumors

- Gynecol Oncol 2015
  - Review of 26 studies
  - Improved survival with > 2 hours of exercise/week
The 360 Program

- Northwestern Integrative Medicine
- Two appointments free of charge
  - Referral needed
  - Subsequent appointments at discounted rate
- Acupuncture, massage, Reiki, naturopath
  - Maggie Daley and Lurie
- 312-926-3627
■ Memorial Sloan-Kettering Cancer Center. Integrative Medicine (http://www.MSKCC.org/IntegrativeMedicine)
■ NCCAM. Time to Talk: Ask Your Patients About Their Use of Complementary Health Practices (http://nccam.nih.gov/timetotalk/forphysicians.htm)
■ Society for Integrative Oncology (http://www.integrativeonc.org)
■ Abrams, D. & Weil, A. Integrative Oncology (Weil Integrative Medicine Library, Oxford University Press 2009)