Lectures in Holistic Health

6th in a series
Jakob Jaggy hMD
Future lectures

- March 7th: Healthy foods for you and your kids.
- March 21st: Stress and you.
- April 4th: Co-dependant no more.
Organizations I support

- AHMA www.holisticmedicine.org
- FoCuS www.foothillsustainability.org
- OuterAisle www.tablemountain.com
The Adaptive Immune System

- The three parts of the Adaptive Immune System and how to balance them.
The Adaptive (as opposed to innate) Immune system has 3 main parts:

- the **cell-mediated** defense (T-cells, direct cell destruction, TH1)
- the **humoral** defense (B-cells, antibody production, TH2)
- the **mucosal** defense (mucosal membranes, mainly GALT)

and one “independently” functioning part:
- Natural Killer cells (NK)
Where are they coming from?

Bone marrow or fetal liver

Pluripotent stem cell

Lymphocyte stem cell

B cell and macrophage

Lymphoid tissue (lymph nodes, spleen, blood, and lymph)

Thymus

B cell

T cell
It is about balance
When things go wrong

- Because the majority of the immune system is located in and around the gut (GALT), the immune functioning is closely linked to gut health.

- Gut health is disturbed primarily through an imbalance in the intestinal flora (intestinal dysbiosis), which leads to Leaky Gut Syndrome (LGS).
The Domino effect

- Intestinal dysbiosis (Antibiotics)
- Leaky gut syndrome \(\rightarrow\) Food allergies
- TH2 dominance
Other factors leading to TH2 dominance

- Processed heated vegetable oils
- White sugar
- Insecticides, pesticides
- Tobacco
- Stress
- Alcohol (hard liquor)
- Sedentary life style
- Lack of water
- Negative attitudes
The effects of TH2 dominance

- Depressed cell-mediated immunity (increased risk for viral illnesses and cancer)
- Chronic allergies
- Increased risk for autoimmune diseases
- Multiple chemical sensitivity (MCS)
How to improve cell-mediated response

- Omega-3 fatty acids (lowers IL6)
- Monounsaturated fats (olive oil, increases IgA)
- Vitamin A (Cod liver oil, increases IgA)
- Glutamine (supports healthy mucus membranes)
- Digestive enzymes (less Circulating Immune Complexes)
- Lactobacillus plantarum and L. casei (increases IL12 and gamma IFN)
- Bifidobacterium longum (increases IgA)
Other ways to boost TH1 response

- Ginseng (increases IL2, gamma IFN and NK function)
- Adequate Thyroid replacement (T4 induces gamma IFN)
- Garlic (increases IL2 and NK)
- Glutathion (ALA, selenium, NAC, whey protein, glutamine, raw milk are good sources, improves APC and CD8 functioning)
- DHEA (increases IL2, gamma IFN, decreases IL6 and IL10)
- Thymus extract (Bio-Pro thymic protein A, increases IL2 and Tcell function)
- Destress (high cortisol suppresses immune function in general)
NK cells

- NK cells work independent of the rest of the immune system.
- They are specifically designed to eradicate virus infected and cancer cells.
- Produced in the Thymus, they are a subset of the T-cells.
What’s it look like?

The NK cell (left) is destroying the cancer cell.
NK cell booster

- IP6 (Inositol hexaphosphate, from brown rice, corn and a high fiber foods in general)
- Colostrum (Transfer Factor)
- Shitake, Maitake, Reishi, Cordyceps (AHCC)
- Beta Glucans (from oat/rye sprouts)
- Aloe vera
- Naltrexone (increases endorphin production which increases macrophage, CD4 and CD8 activity)
- Garlic (increases NK activity)
The top boosters

- IP6 (phytic acid)
- about 5 grams daily for full therapeutic effect
- powerful antioxidant, prevents platelet aggregation, removes plaques, dissolves kidney stones, reduces TG and cholesterol
- it increases the oxygen carrying power of the blood
- between meals
- IP6 induces G1 arrest and apoptosis in prostate cancer cell line

Neoplasia 2004
Naltrexone
- increases both beta-endorphin and MEK and triples NKC activity
- no development of resistance
- prevents opportunistic infection in PWA

Bernard Bihari MD 1985-86
Another top one

- Transfer factor
  - transfer ability to express cell-mediated immunity from donor to nonimmune recipient
  *Ann NY Ac Sc 1993*
  - In 25 years of experience showed decrease in recurrence and increase in survival in cancer patients, improvement in liver biopsy in hep B patients
  *Pizz G, 11th Int Congress on TF*
  - Remission of resistant infections in 45 peds patients over 12 years (except 2)
  *Ayala de la Cruz, 11th Int Congress on TF*
Thank you!

Questions?