Lectures in Holistic Health

6th in a series
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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 <u>www.tablemountain.com</u>

The Adaptive Immune System

The three parts of the Adaptive Immune System and how to balance them.

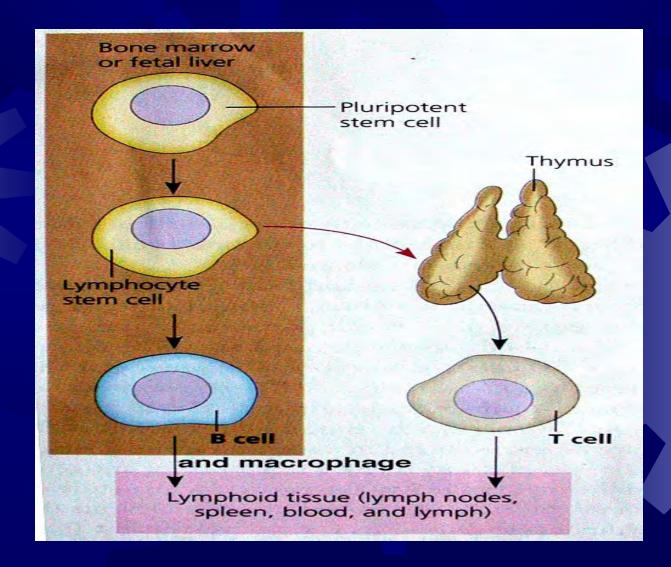
Three main parts to the puzzle

- 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)

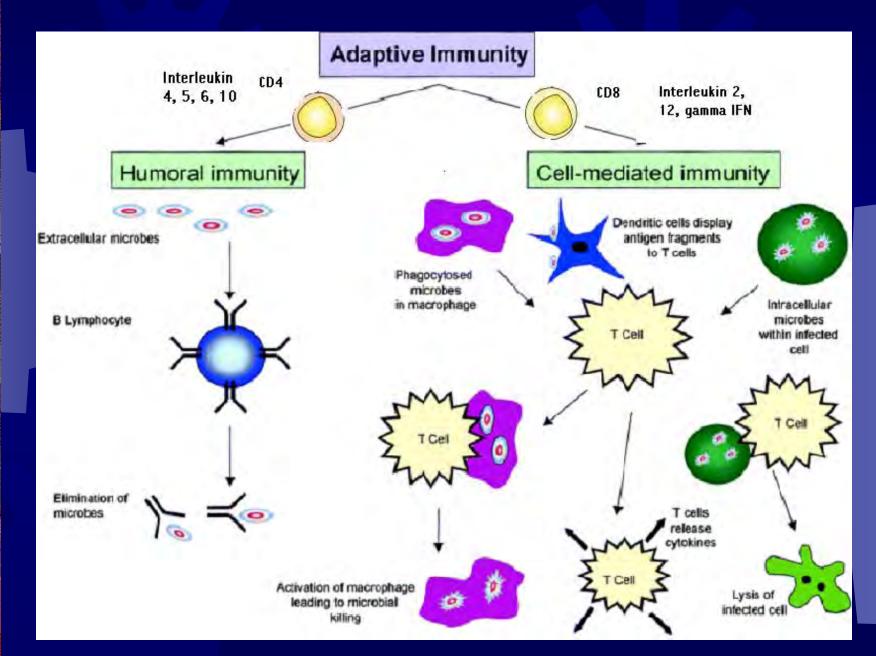
and one "independently" functioning part :

-Natural Killer cells (NK)

Where are they coming from?



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 —— 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)

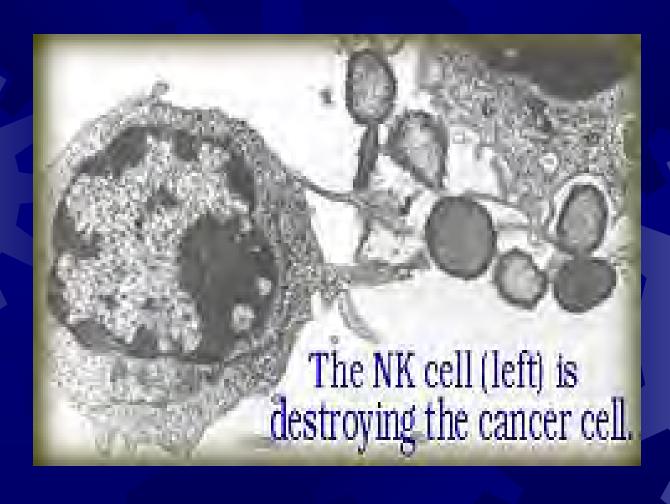
Other ways to boost TH1 response

- 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 (inceases IL2, gamma IFN, decreases IL6 and IL10)
- Thymus extract (Bio-Pro thymic protein A, inceases 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?



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 apoptosisin prostate cancer cell line

Neoplasia 2004

Next one

- 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?