AUTISM, AUTOIMMUNITY, AND LOW-DOSE NALTREXONE

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CHELSEY 2-1/2

AGE AT DIAGNOSIS WITH ASD
WORLDWIDE ASD EPIDEMIC

• FROM 2001-04, 1026% INCREASE IN FULL-DIAGNOSIS ASD SCHOOL AGE CHILDREN PER US DEPT OF EDUCATION.

• OVER 2 MILLION CHILDREN IN US HAVE ASD, OVER 6 MILLION HAVE ADD/ADHD, OVER 2 MILLION TAKE RITALIN

• INCIDENCE OF CLASSIC 1:10,000 TO ACQUIRED ("REGRESSIVE") ASD 1:150

• RATIO - BOYS:GIRLS 4:1 for ASD, ADD/ADHD, LEARNING/BEHAVIOR
AUTISM (ASD) CHARACTERISTICS

AUTISM SPECTRUM INCLUDES: AUTISM, HFA, ASPERGER’S, PDD, ADD/ADHD

- FAILURE TO BOND
- LACK OF SOCIAL INTERACTION
- AVOIDANCE OF EYE-TO-EYE CONTACT
- DIFFICULTIES IN LANGUAGE DEVELOPMENT
- REPETITIVE BEHAVIORS CALLED “STIMMING”
ASD BIO-MEDICALLY

• GENETIC PREDISPOSITION – ALLERGIES, AUTOIMMUNITY, FAMILY HISTORY

• WEAKENED IMMUNE SYSTEM, FREQUENT INFECTIONS/ANTIBIOTICS 1st YEAR

• GET INFLAMMATION, PATHOGENS

• IMPAIRED NUTRITIONAL STATUS INABILITY TO EXCRETE THEREFORE ACCUMULATE HEAVY METALS IN THEIR BODIES
METABOLIC IMBALANCES IN AUTISM SPECTRUM DISORDER

- MULTIPLE NUTRITIONAL DEFICIENCIES
- ELEVATED IgG ANTIBODIES GLUTEN/CASEIN
- IMBALANCE GUT BACTERIAL FLORA
- URINE BACTERIAL/FUNGAL BYPRODUCTS
- MYELIN SHEATH INJURY IN BRAIN
- EVIDENCE OF IMMUNE IMPAIRMENTS
- METHYLATION DISORDERS
- INABILITY TO EXCRETE TOXINS/METALS
ASD CAUSATION MODELS

• 1) SIMPLY GENETIC?

• 2) GASTROINTESTINAL: GLUTEN/CASEIN INTOLERANCE, ENZYME DEFICIENCY, YEAST OVERGROWTH MODEL

• 3) TOXIC CHEMICALS/HEAVY METALS – VACCINATIONS, AMALGAMS/FISH

• 4) AUTOIMMUNITY, VIRAL MODEL
PREMIER ASD IMMUNE PANEL, ISL

- Streptococcal Peptides (M5, M12, M19) (IgG)
- Gliadin Peptides Antibodies (IgG, IgM, IgA)
- Casein Peptides Antibodies (IgG, IgM, IgA)
- Antibodies to Hg Binding Antigen (Fibrillarin) (IgG, IgM, IgA)
- Dipeptidylpeptidase (DPP IV) Antibodies (IgG, IgM, IgA)
- Anti-Myelin Basic Protein Antibodies (IgG, IgM, IgA)
- Anti-Neurofilament Antibodies
- Metallothionein (Cellular Level)
- NK Cell Activity
- Measles Antibodies (IgG, IgM)
- VIRAL SCREEN #3: Varicella Zoster Virus (IgG)
  - Cytomegalovirus (IgG, IgM)
  - Epstein-Barr Virus or VCA (IgG, IgM)
  - Herpes Type 1 & 2 Virus (IgG, IgM)
  - Herpes Type 6 Virus (IgG, IgM)
- Immunoglobulins (IgG, IgA, IgM)

$1644, 50% DISCOUNT AS PANEL = $822 PRE-PAID

Blood Required, 2 yellow tops, 1 red top (10 cc in each tube)
MEASLES AND BRAIN VIRAL AUTO-ANTIBODIES IN ASD

• SINGH 1998: 70% OF AUTISTIC SERA HAD ANTI-MYELIN BASIC PROTEIN ANTIBODIES, NONE IN NT CHILDREN.

• 57% ASD HAD ANTI-NEURON-AXON FILAMENT PROTEIN, NONE IN NT KIDS

• HIGHER ANTI-MEASLES ABS THAN NT KIDS, MUMPS AND RUBELLA NOT DIFFERENT FROM NT’S
WAKEFIELD: INFLAMMATORY BOWEL DISEASE IN AUTISM

- GUT BIOPSIES, 1998: MEASLES VIRUS DETECTED IN DENDRITIC CELLS AND MATURE LYMPHOCYTES IN 75/91 ASD CHILDREN VS 5/70 CONTROLS WITH LYMPHOID NODULAR HYPERPLAXIA

- THOUGHTFUL HOUSE 2005 STUDY CORROBORATES INCREASED RATE OF SWOLLEN INTESTINAL LYMPH GLANDS, INCREASED INTESTINAL LINING INFLAMMATION IN ASD’S WITH BOWEL ISSUES.
ASD BIO-MEDICAL TREATMENTS

• 1) RESTRICTED DIET, GF/CF/SF
• 2) NUTRIENTS SOMETIMES MEGA
• 3) TREATMENT GUT PATHOGENS
• 4) CORRECTION METHYLATION DYSREGULATION (“QUINTET”)
• 5) DETOXIFICATION (CHELATION): REDUCING TOXIC METALS
• 6) IMMUNE ENHANCEMENT
• 7) ANTI-VIRAL TREATMENT
RECENT ASD RX REFINEMENTS

• **NEW DIETS BEYOND GF/CF/SF:** SCD SPECIAL CARBOHYDRATE DIET – OXALATE-LOWERING DIET (OWENS)

• METHYLCOBALAMIN – **DAILY HIGH DOSE** INJECTIONS (J. NEUBRANDER)

• NASAL SPRAY MB-12 + FOLINIC ACID

• **TRANSDERMAL DETOX AGENTS,** TD-DMPS, TD-DMSA, TD-ALA, BETTER FOR GUT THAN ORAL
NEWER ASD TREATMENTS

LOW-DOSE NALTREXONE (LDN)
FOR IMMUNE-MODULATION, SOCIAL, COGNITIVE, LANGUAGE
NON-TOXIC, NON-ADDICTING
NON-EXPENSIVE, AVAILABLE ORALLY OR TRANSDERMALLY

PPAR ACTOS,
BRAIN/GUT ANTI-INFLAMMATORY)
SHIFTS T2 – T1
ACTOS FOR BRAIN-GUT INFLAMMATION

- PPAR – **ACTOS** (PIOGLITAZONE), PX FOR PRE-DIABETES, LOWERS GUT AND NEURO-INFLAMMATION, REGULATES LIPID AND GLUCOSE METABOLISM, SHIFTS IMMUNITY FROM T2 HUMORAL (AUTO-IMMUNITY) TO T1 (CELLULAR)

- CLINICAL STUDY >300 CHILDREN, DR. BORIS/GOLDBLATT, PROMISING
LOW-DOSE NALTREXONE (LDN)

• FDA APPROVED OPIOID ANTAGONIST 1985, BRAND REVIA, ALSO GENERIC USED IN 50 - 150MG DOSES AS OPIOID ANTAGONIST FOR NARCOTIC/ALCOHOL ADDICTION

• MUST BE PRESCRIBED AND COMPOUNDED IN CAPSULES OR TRANSDERMAL CREAM
LOW-DOSE NALTREXONE AS IMMUNOMODULATOR

- OPIOIDS ALTER BOTH INNATE AND ADAPTIVE IMMUNE CELLS – NK CELLS, MACROPHAGES, IMMATURE THYMOCYTES, T CELLS AND B CELLS

- BRIEF BLOCKADE OF OPIOID RECEPTORS ELEVATES B-AND OTHER ENDORPHINS

- NORMALIZATION OF PLASMA CHEMICAL PROFILES: ELEVATED NOREPINEPHRINE, ARGinine-VASOPRESSIN, SEROTONIN (BOUVARD, LENSING, PANKSEPP, 1995)
ENDORPHINS

• **NEUROHORMONES** - MODIFY NERVE CELL OPIATE RECEPTORS TO NEUROTRANSMITTERS, ANALGESIC

• **ENKEPHALINS/ENDORPHINS**: ALPHA-BETA-GAMMA & SIGMA-ENDORPHIN

• **STIMULATE ENDORPHIN SECRETION**:
  - LDN
  - PHYSICAL EXERCISE
  - TOUCH - MASSAGE/ACUPUNCTURE
  - LAUGHTER
  - CHOCOLATE
BETA-ENDORPHIN
ENDORPHIN COLLECTION
MICHAEL W. DAVIDSON (NHMFL)
FLORIDA STATE UNIVERSITY
Th1/Th2 BALANCE

Th1 – CELLULAR IMMUNITY, DIRECTS NK T-CELLS AND MACROPHAGES TO ATTACK ABNORMAL CELLS AND PATHOGENS INSIDE THE CELL

Th2- HUMORAL IMMUNITY, CREATES ANTIBODIES TO NEUTRALIZE FOREIGN INVADERS OUTSIDE CELL
HEALTHY IMMUNITY

• BALANCED BETWEEN Th1 - Th2, SWITCHES BACK AND FORTH AS NEEDED

• INABILITY TO RESPOND ADEQUATELY TO Th1 – CHRONIC INFECTION & CANCER

• OVERACTIVE Th2 RESPONSE – PLAYS ROLE IN AUTOIMMUNITY AND ALLERGIES
UNHEALTHY IMMUNITY

FAILURE OF THE Th1 ARM &
OVERACTIVE Th2 ARM:

AIDS
CFS (FATIGUE)
CANDIDIASIS
MULTIPLE ALLERGIES
MCS (CHEMICAL)
CANCER
AUTISM
1996 ASD STUDY: LDN OPIOID-IMMUNE INTERACTIONS

• ANN 1ST SUPER SANITA, 1996;32(3):351-9

SCIFO R, NICOLOSI, MARCHETTI ET AL:

• LDN PRODUCED SIGNIFICANT REDUCTION OF SYMPTOMS IN 7 OF 12 ASD KIDS. SIGNIFICANT INCREASE OF T-(CD4/CD8) HELPERS & REDUCTION OF T-SUPPRESSORS; NK LEVELS INVERSELY RELATED TO PLASMA OPIOID LEVELS
THERAPEUTIC USE IN ASD

• USE IN TINY DOSES (1.5 – 4.5MG)

• REGULATES MOOD & MODULATES IMMUNE SYSTEM, USE ONCE DAILY BETWEEN 9PM-12AM FOR 2-4 AM

ENDORPHIN “RUSH”, LASTS 18 HRS

• AS IMMUNOMODULATOR - INCREASES NATURAL ENDORPHINS, SHIFTS T2 (HUMORAL IMMUNITY) TOWARD T1 (CELLULAR) IMMUNITY
INFORMAL CLINICAL STUDY FINDINGS APR-MAY 05

74% ENHANCED SOCIABILITY, MOOD, COGNITION, LANGUAGE

15-20% FREQUENT EARLY INFECTIONS FOLLOWED BY IMPROVEMENTS

74% OF 55 SELF-REPORTED OVER-ALL POSITIVE EFFECT
(CURRENT) CLINICAL STUDY

- Feb-June 2006 16 WEEK STUDY:
  - 30 CHILDREN, 70 ADULTS, PARENTS (MAINLY MOMS) OR CLOSE RELATIVE (aunt, grandmom)

- WEEKLY TRACKING SHEETS – MOODS, PHYSIOLOGICAL RATING

- IMMUNE LAB PANEL PRIOR TO LDN AND AT END OF STUDY
CLINICAL OBSERVATIONS

• PUSH TO FULL DOSE BEST FOR MOST, ADJUSTMENT FASTER

• BRIEF PERIOD 2-7 DAYS OF HYPERNESS, INSOMNIA, 25%

• SOCIAL EFFECTS IMMEDIATELY FOR MANY “VIRAL ACTIVATION” – COLD, FLU, FEVER, RASH, COLD SORE IN 25-30%, SHORT-LIVED FOLLOWED BY BENEFITS
LDN STUDY TRACKSHEET

• OVERALL MOOD
• ENERGY – FATIGUE - STAMINA
• APPETITE - WEIGHT
• DIGESTION
• CONSTIPATION - DIARRHEA - GAS
• ARTHRITIC ACHES - HEADACHE
• LIBIDO
• SLEEPING
• CONCENTRATION - MEMORY
• SOCIABILITY - COGNITION
STUDY: ISL NALTREXONE PANEL

CBC, METABOLIC CHEM PANEL
LYMPHOCYTE SUBSET
CD4+CD25+T CELLS (REG CELLS)
IL-10 (INTERLEUKIN - 10)
TGF-BETA 1 (TRANSF GR FACTOR - 1)
(NK) NATURAL KILLER CELL
(MBP) – MYELIN BASIC PROTEIN ABS
(MOG) - MYELIN OLIGODENDROCYTE GLYCO PROTEIN ABS
(NF) NEUROFILAMENT ANTIBODIES
A VERY SPECIAL NON-RESPONDER
LOW-DOSE NALTREXONE E-LIST:
AUTISM_ASD.YAHOOGROUPS.COM, OWNER JMcCANDLESS, M.D.