

TREATING AUTISM

Friday October 14, 2005

Action Against Autism

Practitioner Training Session

#2 Viral/Immune Issues in ASD

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IMMUNOLOGY IN ASD

- **IMMUNOLOGICAL ISSUES IN AUTISM**
- **FAMILY HISTORY IMPORTANT**
- **IMMUNE TESTING AS GUIDANCE FOR
TREATMENT**

DIAGNOSTIC EVALUATION IMMUNE SYSTEM

- **Specialty Laboratory Tests, Minimal**
 - **1) Comprehensive Viral Panel #3**
 - **2) NK Cytotoxicity Test**
 - **3) Myelin Basic Protein (MBP) Panel**
 - **4) Rubella antibodies**

VIRUSES IN AUTISM

- **VIRAL TITERS ARE OFTEN ELEVATED IN ASD; SOME CHILDREN IMPROVE WITH ANTI-VIRAL TREATMENT**
- **EVOLUTIONARY BIOLOGIST PAUL EWALD BELIEVES AUTISM CAN BE CAUSED BY “SLOW VIRUSES”**
- **SPECT EXAMS SHOWING AREAS OF HYPOPERFUSION ARE BELIEVED BY SOME TO BE AREAS OF VIRAL PRESENCE**₄

MECHANISMS OF VIROLOGY in AUTISM

- **LITTLE KNOWN BECAUSE OF
MULTIPLE ETIOLOGIES IN AUTISM**
- **GENETIC AND ENVIRONMENTAL
FACTORS BOTH IMPORTANT**
- **DIRECT INFECTION OF CNS**
- **INFECTION ELSEWHERE MAY
TRIGGER DISEASE IN THE CNS**
- **ALTERATION OF THE IMMUNE
SYSTEM OF MOTHER OR CHILD**
- **ANY COMBINATION OF THESE**

VIRAL INFECTION & AUTISM

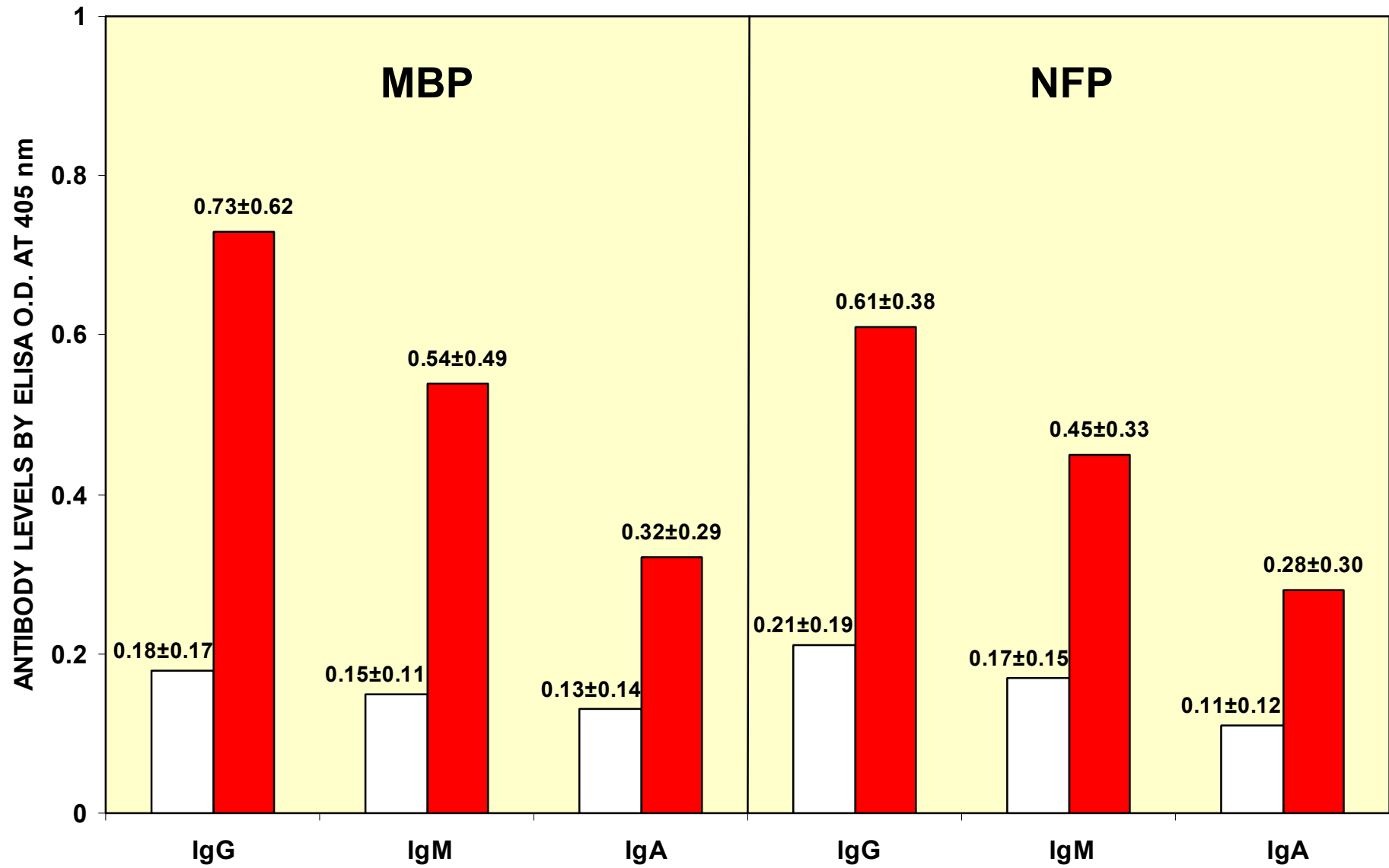
- **ANIMAL STUDIES SHOW THAT VIRAL INFECTIONS AND ENSUING IMMUNE RESPONSE CAN DISRUPT NEURODEVELOPMENT**
- **CONNECTION BETWEEN CONGENITAL RUBELLA AND AUTISM**
- **STUDIES LINK HERPES SIMPLEX, CYTOMEGALOVIRUS, VARICELLA, AND MUMPS TO AUTISM**

GENERAL IMMUNITY TESTS

- **NATURAL KILLER (NK) CELL
ACTIVITY**
- **IMMUNOGLOBULINS, IgG, IgM, IgA**

AUTOIMMUNITY TESTS

- **ANTI-MYELIN BASIC PROTEIN ANTIBODIES IgG, IgM, IgA**
- **ANTI-NEUROFILAMENT ANTIBODIES**



ANTIBODIES AGAINST MBP AND NEUROFILAMENTS IN CONTROLS AND CHILDREN WITH AUTISM .

COMPREHENSIVE VIRAL SCREEN

- **VARICELLA ZOSTER VIRUS (IgG)**
- **CYTOMEGALOVIRUS (IgG, IgM)**
- **EPSTEIN-BARR VIRUS - VCA (IgG,IgM)**
- **HERPES 1 (IgG, IgM)**
- **HERPES 2 (IgG, IgM)**
- **HERPES TYPE 6 VIRUS (IgG, IgM)**

Premier ASD Immune Panel, ISL

◆ Streptococcal Peptides (M5, M12, M19) (IgG)	
◆ Gliadin Peptides Antibodies (IgG, IgM, IgA)	\$25.00
◆ Casein Peptides Antibodies (IgG, IgM, IgA)	\$99.00
◆ Antibodies to Hg Binding Antigen (Fibrillar) (IgG, IgM, IgA)	\$99.00
◆ Dipeptidylpeptidase (DPP IV) Antibodies (IgG, IgM, IgA)	\$99.00
◆ Anti-Myelin Basic Protein Antibodies (IgG, IgM, IgA)	\$99.00
◆ Anti-Neurofilament Antibodies	\$99.00
◆ Metallothionein (Cellular Level)	\$99.00
◆ NK Cell Activity	\$150.00
◆ Measles Antibodies (IgG, IgM)	\$150.00
◆ VIRAL SCREEN #3: Varicella Zoster Virus (IgG)	\$100.00
◆ Cytomegalovirus (IgG, IgM)	\$100.00
◆ Epstein-Barr Virus or VCA (IgG, IgM)	\$100.00
◆ Herpes Type 1 & 2 Virus (IgG, IgM)	\$100.00
◆ Herpes Type 6 Virus (IgG, IgM)	\$100.00
◆ Immunoglobulins (IgG, IgA, IgM)	\$50.00
◆ <u>\$1544, 50% DISCOUNT AS PANEL = \$772 PRE-PAID</u>	\$75.00
◆ <u>Blood Required, 2 yellow tops, 1 red top (10 cc in each tube)</u>	

VIRUSES AND SEIZURE DISORDERS

- **EPILEPSY MUTIFACTORIAL:**
 - **GENETICS, GENDER, ENVIRONMENT**
 - **IMMUNODYSFUNCTION IMPORTANT FACTOR**
 - **TRIGGER MAY BE VIRAL INFECTION, ESP
LATENT AND REACTIVATING VIRUSES**
 - **HERPES VIRAL DNA HAS BEEN FOUND IN
BRAIN TISSUE IN THOSE OPERATED ON FOR
FOCAL EPILEPSY**

VIRAL/IMMUNE ASPECTS OF SEIZURE DISORDERS

- **NEUROTROPIC VIRUSES:**
 - **HERPES SIMPLEX 1 (HSV-1)**
 - **HERPES TYPE 6 (HHV-6)**
 - **CYTOMEGALOVIRUS (CMV)**
 - **EPSTEIN-BARR (EBV)**
 - **RUBEOLA**

IMMUNE-MEDIATED EPILEPSY CONNECTIONS

- LOW IMMUNOGLOBULINS (IGA)
REPORTED IN MIXED EPILEPSY**
- GLUTAMATE RECEPTOR ANTIBODIES**
- ANTIGLIADIN ANTIBODIES IN
OCCIPITAL EPILEPSY REPORTED**
- HUMAN LEUKOCYTE ANTIGENS LOW -
ALLOWS PERSISTENT VIRUS INFECTION**
- THERE IS GENETIC PREDISPOSITION TO
HERPES VIRUS PERSISTENCE IN SOME** ¹⁴

GUT MEASLES ASSESSMENT

- **HISTORY, MMR RESPONSE**
 - **GUT ISSUES**
- **RUBEOLA ANTIBODIES TEST**
- **BRAIN AUTO-ANTIBODIES TEST**
 - **ENDOSCOPY**
 - **BIOPSY, CSF ANALYSIS**
 - **PCR (POLMERASE CHAIN)**

MEASLES AND AUTISM: VIRAL AUTO- ANTIBODIES IN BRAIN

- **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 ASD

- **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**

WAKEFIELD CONT'D: INFLAMMATORY BOWEL DISEASE IN ASD

- **THOUGHTFUL HOUSE 2005 STUDY
CORROBORATES INCREASED RATE
OF SWOLLEN INTESTINAL LYMPH
GLANDS, INCREASED INTESTINAL
LINING INFLAMMATION IN ASD'S
WITH BOWEL ISSUES.**

POSSIBLE MECHANISM OF LNH

- **GUT/IMMUNE INJURY FROM THIMEROSAL IN VACCINATIONS PRECEDING MMR**
- **INCREASED CYTOKINE PRODUCTION TRIGGERED BY LIVE VIRUSES**
- **INFECTIONS MAY TRIGGER AUTOIMMUNE RESPONSE IN SUSCEPTIBLE CHILDREN**
- **INFLAMMATION CAUSES INCOMPLETE BREAKDOWN & EXCESSIVE ABSORPTION OF OPIOID-LIKE PEPTIDES FROM FOOD**

HEAVY METALS AND VIRUSES

- **COMPROMISED AREAS DRAW HEAVY METALS AND VIRUSES**
- **HYPO-PERFUSION**
- **INFLAMMATION**
- **VASO-CONSTRICTION**
- **NEONATAL HYPOXIA LEADS TO ELEVATION OF CIRCULATING OPIOIDS**

ANTI-VIRAL TREATMENT

- **BECAUSE THEY USE THE MACHINERY OF THEIR HOST CELLS, VIRUSES ARE DIFFICULT TO KILL**
- **MOST COMMON ANTI-VIRAL REMEDIES ARE VIRO-SUPPRESSIVE, NOT VIRACIDAL (TOO TOXIC TO HOST)**

IMMUNITY TREATMENT NATURAL ANTI-VIRALS

- **Lauricidin (originally found in breast milk & coconut, now synthetic) www.Lauricidin.com**
- **Larch arabinogalactins, NF Formulas**
- **IP- 6 (Inositol hexaphosphate), VRP, Physiol.**
- **Myco-Immune (7 mushrooms - immune enhancers), Thorne**
- **Moducare, Thorne (must take on empty stomach)**
- **Olive leaf extract, Echineacea, Green Tea**

ANTI-VIRAL PRESCRIPTION MEDS

- **Acyclovir 400mg tid (FOR LITTLE GUYS)**
- **Valtrex (primary one I use) FOR >35#
250mg tid – 500mg tid depends on
age/size**
- **Famvir 250mg – 500mg/day depends on
age/size**
- **Immunovir (Isoprinosine)
30 - 50mg/kg/day continue as beneficial**

GUT MEASLES TREATMENT

- **DIETARY RESTRICTION**
- **ENZYMES**
- **GENERAL IMMUNE ENHANCEMENT**
- **METHYLATION**
- **DECREASE HEAVY METALS**
- **HEAL LEAKY GUT**
- **ANTI-OXIDANTS**
- **LIVER SUPPORT**

- **ANTI-INFLAMMATORIES**

HIGH-DOSE VITAMIN A FOR GUT MEASLES -

BAKER - McCANDLESS PROTOCOL

**200,000-400,000IU ORALLY 2 CONSECUTIVE DAYS
EVERY SIX MONTHS IF 3+ OUT OF 5 POSITIVE:**

- 1) HISTORY OF REGRESSION AFTER MMR**
- 2) PERSISTENT GUT PROBLEMS, PAIN**
- 3) MORE THAN SLIGHTLY ELEVATED IgG
SERUM RUBEOLA ABS**
- 4) ELEVATED ANTI-MBP & ANTI-NF ABS
(SHOWING AUTOIMMUNITY)**
- 5) ENDOSCOPY SHOWING ILH, CSF/BIOPSY, PCR²⁵
VACCINE STRAIN MEASLES**

PREMIER AUTISM PANEL

Test Results-Continued

Summary Abnormal Values

		<u>Normal Range</u>
<u>Gliadin IgM</u>	26	0-20
<u>Casein IgG</u>	11	0-10
<u>Casein IgM</u>	35	0-10
<u>Myelin Basic Protein IgM</u>	53	0-50
<u>Metallothionein Medium</u>	41.00	20-40%
<u>NK Cell Cytotoxic Activity</u>	13.30	20-50 Lus
<u>Immunoglobulins IgA</u>	57.00	83-407 mg/dl
<u>Herpes Virus Type 2 IgM</u>	132	<100

SUMMARY – HUNTER IMMUNE/VIRAL RX

- **1) VALTREX 500mg TID (IgM HV)**
- **2) ORAL HUMAN GAMMAGLOBULIN,
400mg HS (LOW IMMUNOGLOBULINS)**
- **3) QUINTET, BUFFERED VITAMIN C
WITH LARCH ARABINOGALACTINS**
- **4) HIGH-POTENCY PROBIOTICS**
- **5) RESTRICTIVE DIET (GF/CF)**

**OXIDATIVE STRESS
PATHOGENIC FACTOR IN
VIRAL INFECTIONS**

OXIDATIVE STRESSORS

**LACK OF DIETARY
ANTIOXIDANTS**

HEAVY METAL POISONING

SMOKING

INADEQUATE METHYLATION

SEVERE EMOTIONAL STRESS

PROLONGED FATIGUE

LIFE-STYLE ANTI-VIRAL TRATEGIES

- **ADEQUATE FRESH VEGETABLE INTAKE**
- **NON-SMOKING**
- **MODERATION IN FOOD & ALCOHOL**
- **ADEQUATE SLEEP**
- **NURTURING YOUR RELATIONSHIPS**
- **SEEK TO ENGAGE IN INSPIRING WORK**
- **TRY TO KEEP FROM TAKING YOURSELF TOO SERIOUSLY**