

Bi-Digital Oring Test Historical Perspectives

Avraham Henoch MD

John Stuart Mills

“All good things are
the fruit of originality”

Ralph Waldo Emerson

“Men love to Wonder
and that is the seed
of science”

- **The Bi-digital O-Ring Test was discovered in 1977 by Yoshiaki Omura M.D..**

BDORT

- **“resonance phenomenon” .**
- **“therapeutic effect”**
- **“enhanced drug uptake”**

BDORT:Important pathogens and substances

- **Role in chronic disease and cancer. heavy metals; lead, mercury, and aluminum and the herb Cilantro as the remover of these metals.**
- **Viruses such the herpes family HSV1, HSV2, HHSV6, CMV**
- **bacteria and spirochete e.g. Borriela bergdorferi, Helicobactor jejuni and the mycobacteria; M.Tuberculosis and M.Avium and Chlamydia trachomatis and pneumoniae**

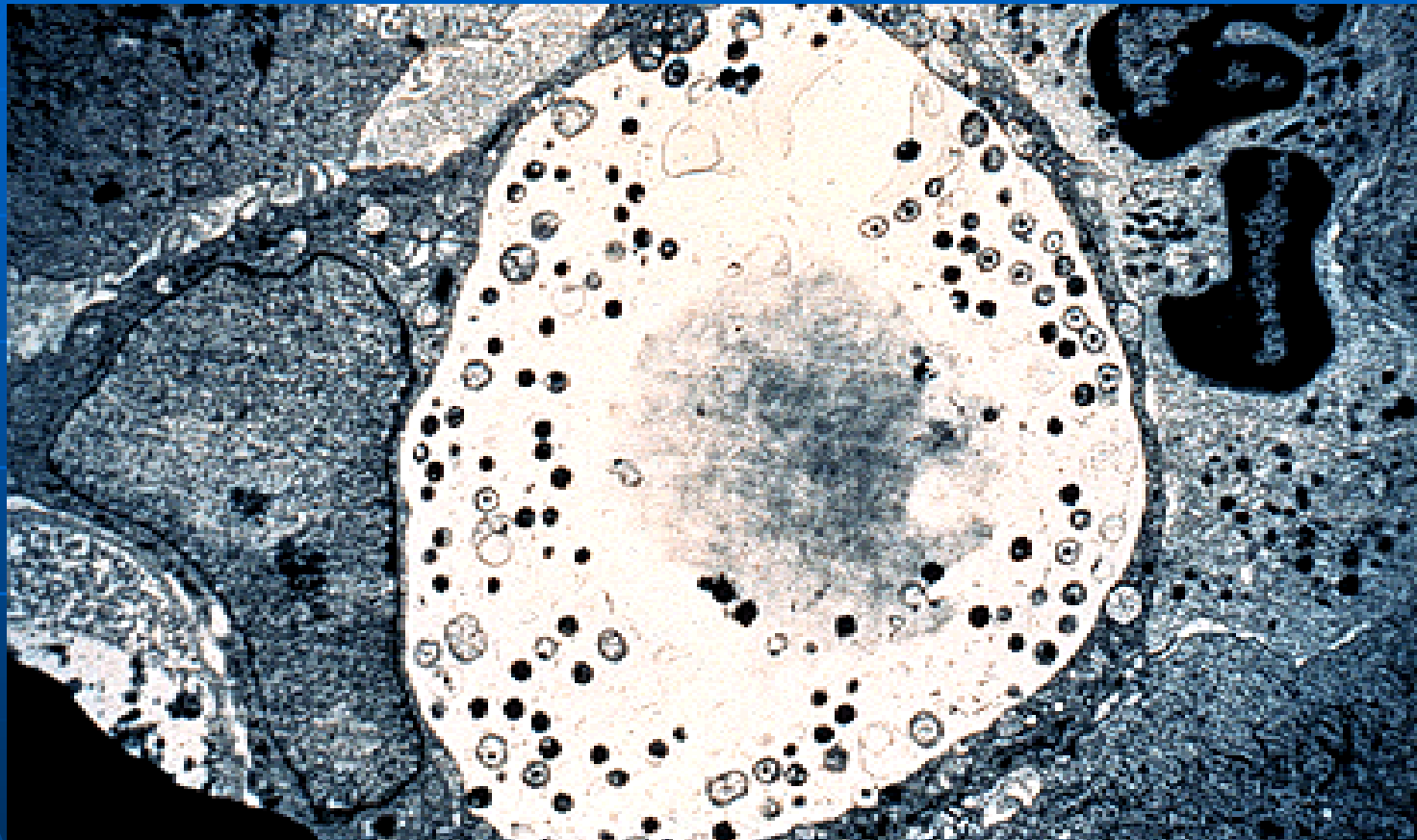
Chlamydia

- infects only humans.
- They are obligate intracellular parasite--cannot synthesize own ATP
- Bacteria: RNA, DNA, synthesize proteins, binary fission (retic. body), susceptible to Antibiotics (Tet, Eryth, sulfa)

Chlamydia Pathogenesis

- Extracellular inert, infective-Elementary body (EB)
- Intracellular (inclusion bodies) which divide.-Reticulate body (RB)
- Uptake of EB may be by parasite encoded surface protein.
- intracellular habitat + changes in form help evade host defenses

Reticulate bodies in epithelium



Reticulate bodies of chlamydial infection Electron micrograph of an infected epithelial cell containing multiple reticulate bodies, the replicating form of *Chlamydia trachomatis*. Courtesy of Jonathan Zenilman, MD.

Chlamydia Infection

- Asymptomatic reservoirs in human-GU tract.
- Mechanism remains unclear

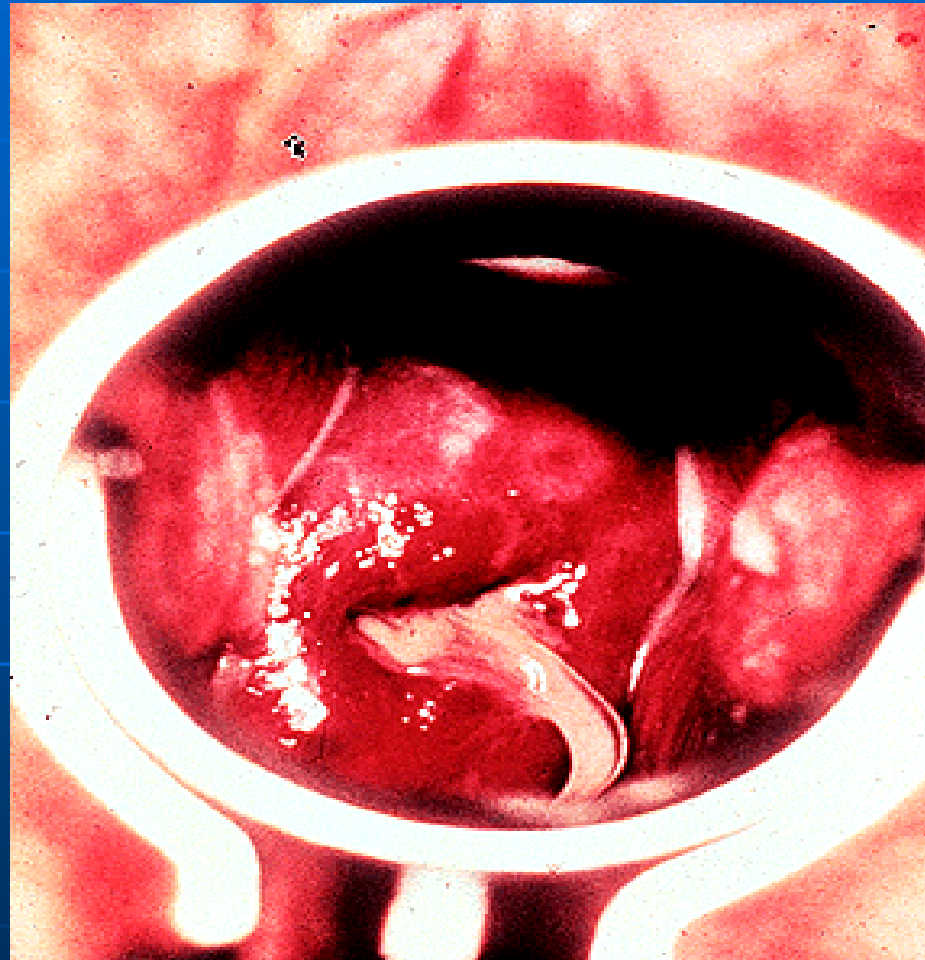
Chlamydia Trachomatis

- There are 17-serotypes
- A,B,Ba,C-.produce trachoma
- D,E,F,G,H,I,J,K-cause inclusion conjunctivitis,urethritis,salpingitis and Perihepatitis and infant pneumonia
- L1,L2,L3,cause lymphogranuloma venereum.

C. Trachomatis diseases

- Trachoma-repeated conjunctivitis – scarring and blindness
- Inclusion conjunctivitis at birth
- Urethritis(NGU) asymp or UTI mucoid D/C
- Cervicitis PID infertility ,ectopic preg.
- Lymphogranuloma Venerium-genital lesion ,suppurative adenitis

C.Trach Mucopurulent Cervicitis



Chlamydia cervicitis Mucopurulent discharge is visible coming from the os in a patient with Chlamydia cervicitis. The cervix is erythematous and friable. Courtesy of Jonathan Zenilman, MD.

Lymphogranuloma Venereum



Inguinal syndrome in lymphogranuloma venereum

The characteristic "groove" sign is seen in this man with inflamed superficial and deep inguinal lymph nodes. These may go on to rupture. Courtesy of Jonathan Zenilman, MD.

C.Trach Diagnosis

- Inclusion bodies in cytoplasm of cell scrapings
- Flourescent monoclonal antibodies
- Cell cultures
- Polymerase chain reaction

C.Trachomatis Treatment

- Treated *but not eradicated* by:
- Single dose azithromycin,
- doxycycline, tetracycline, erythromycin, - 7 days
- Prevention-early diagnosis and condoms

C.Trach empiric treatment

- C.Trach very common in GU
- Doxycycline now given empirically for infertility—with success
- This was suggested by BDORT

Chlamydia Pneumonia

- Atypical (walking) pneumonia
- Spreads slowly through aerosol and very close human contact
- Detected by sera for C.Pneum antibodies: IGG, IGM
- Treated with tetracyclines
- C.Psittaci-respiratory path in birds

C.Pneumonia prevalence

Causes of community-acquired pneumonia in North America[†]

Etiology	Prevalence, percent
Streptococcus pneumoniae	20-60
Hemophilus influenzae	3-10
Staphylococcus aureus	3-5
Gram-negative bacilli	3-10
Aspiration	6-10
Miscellaneous	3-5
Legionella sp.	2-8
Mycoplasma pneumoniae	1-6
Chlamydia pneumoniae	4-6
Viruses	2-15

[†]Data from Bartlett, JG, Mundy, LM, N Engl J Med 1995; 333:1618

C.Trach and chronic disease

- BDORT suggests is a pathogen in chronic illness such as prostate cancer
- National Institute of Allergy and Infectious diseases found a gene that encodes a cell destroying toxin-
National Academy of Sciences
Online-11/13/03

Chlamydia and Cancer

- **C. trachomatis** confers an increased risk for subsequent development of **invasive squamous-cell carcinoma** of the **uterine cervix**-Int J Cancer 2000 Jan 1;85(1):35-9J
- **chronic persistent infection with chlamydia** a risk factor for **ovarian cancer**. Infect Dis 2003 Apr 1;187(7):1147-52

Cancer, chronic disease and infection

- **Chronic infection stimulates pro-cancerous response. Cancer is associated with colitis, hepatitis, H.Pylori.**
- **NSAID and ASA lower incidence of gastric and colon ca.**
- **Karin and colleagues knocked out the IKK beta genes in the intestinal cells of mice. 80% of mice didn't get colon cancer. Infection stimulates IKK Beta enzyme which moves NF Kappa B to the nucleus to stimulate the cells inflammatory response and shut down cell death program used to remove cancer cells**

<http://my.webmd.com/content/article/92/101573.htm> #Missing Link Ties Cancer to Chronic Infection

Chlamydia and cancer II

- Lung Cancer may be induced by chronic C.pneu infection, since stable high titers of C.pneu antibodies, especially IgA, a hallmark of chronic infection are prevalent in male squamous CA of lung. APMIS 2001 Sep;109(9):572-80 (ISSN: 0903-4641) Koyi H, et al.
- chronic persistent infection with chlamydia may be a risk factor for ovarian cancer. J Infect Dis 2003 Apr 1;187(7):1147-52 (ISSN: 0022-1899) Ness RB, et al.

BDORT, Telomere and cancer

- BDORT-Low Telomere (below 90)
is correlated with the presence of
cancer in the body

Telomere and epithelial CA

- **Meeker, Alan K., et al, "Telomere Length Abnormalities Occur Early in the Initiation of Epithelial Carcinogenesis," Clinical Cancer Research, May 15, 2004, Vol. 10, Issue 10.**

Chronic effects of Chlamydia

- 1. **C. trachomatis** antigen and nucleic acid asymptomatic, culture-negative men and women with chronic infection.
- 2. **Chlamydia** antigens role in benign **prostate** hypertrophy and EP.
- 3. Antigenic material may be sexually transmissible.
- 4. identified temporarily inactive bacteria-act as immunostimulants and potentially reactivate as **Chlamydia** infection. **Am J Reprod Immunol 2000 Apr;43(4):218-22** Toth M;

BDORT and CAD

- **Bi-Digital O-ring Test (BDORT)-**
Chlamydia species have been
detected in diseased coronary
arteries and treatment with
antibiotics has been suggested.

C. Pneum.-vascular disease

- Linares-Palomino Chlamydia pneumoniae and peripheral artery occlusive disease. J Vasc Surg. 2004 Aug;40(2):359-66
- **C pneumoniae is related to the pathogenesis of atherosclerotic peripheral artery occlusive disease.**

C.Pneumo and M.I.

- people with high levels of antibodies to *C. pneumoniae* (an indication of infection) were associated with an increased risk of heart attack.(29)
- Heltai Elevated antibody levels against Chlamydia pneumoniae, human HSP60 and mycobacterial HSP65 are independent risk factors in myocardial infarction and ischaemic heart disease. Atherosclerosis. 2004 Apr;173(2):337-44

C.Pneumo and CAD

- Sun YY,et al-Detection of serum Chlamydia pneumoniae antibody in patients with coronary heart disease. 2004 Apr;24(4):365-6 **people infected by C.Pneumo-more likely to develop coronary heart disease.**

C.Pneumo and Alzheimers

- ***C. pneum.* from human Alzheimer's brains -infected mice with the pathogen by inhalation. brains of the infected mice developed amyloid plaques**

Chlamydia pneumoniae induces Alzheimer-like amyloid plaques in brains of BALB/c mice. Neurobiol Aging

C.Pneumo and Statins

- **C. pneumo infection reduces effect of lipid-lowering therapy on carotid atherosclerosis and play a role in the progression of atherosclerosis.** Association of Chlamydia pneumoniae antibody with the cholesterol-lowering effect of statins. Atherosclerosis. 2003 Dec; 171(2): 281-5

C.Pneumo CAD & Wine

- animal cells infected with C.Pneum--
to polyphenol, the antibiotic
azythormcyin and red wine (a
California pinot noir)--polyphenol and
red wine as effective as Azithromycin
Atherosclerosis. 2003 Dec; 171(2):
281-5

C.Pneumo and Stroke

- **strong association between patients with stroke /TIA and presence of circulating IgG,IgA antibodies to Chlamydia pneumoniae. supports hypothesis-chronic active,persistent infection-role mechanism thrombosis.**
- Bucurescu G,Evidence associ. between Chlamydia pneumoniae & cerebrovascular accidents. Eur JNeurol.2003Jul;10(4):449-52

C.Pneumo and Aspirin

- **aspirin not only has an anti-inflammatory activity also has anti-chlamydial activity at high doses.** Yoneda H, Aspirin inhibits Chlamydia pneumoniae-induced NF-kappaB activation, cyclo-oxygenase-2 expression and prostaglandin E(2) synthesis and attenuates chlamydial growth. J Med Microbiol 2003 May;52(5):409-415

C.Pneumo and restenosis

- Chlamydia pneum cytomegalovirus and Helicobacter pylori-assoc.with restenosis. pathogen burden of patient with germs of cardiovascular disease was a predictor of eventual failure of the surgery due to restenosis. Greater pathogen burden but not elevated C-reactive protein increases risk of clinical restenosis after percutaneous coronary intervention. Am Heart J 2002 Sep;144(3):491-500

Patient with C.Trach Antibodies



How BDORT can help now

- BDORT discoveries appear to be supported by trends in the scientific literature.
- May help in our view of disease even if we can't legally use it in practice.
We should support the worldwide study of BDORT.

Isaac Newton

“if I have seen
further...it is by
standing on the
shoulders of giants”