1081 BACTERIOPHAGE ARE PRESENT IN THE SPUTUM OF PATIENTS WITH BRONCHOPULMONARY PS. AERUGINOSA INFECTIONS

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Although it is generally appreciated that Ps. aeruginosa specific-phage can be isolated from natural sources in which Ps. aeruginosa can be found, such as seawater and sewage, the presence of phage at the sites of Pseudomonas infection in man is not widely recognized. Using routine bacteriological procedures we show that species-specific phage can be consistently recovered from the sputum of patients with chronic Ps. aeruginosa bronchopulmonary infections, including 6 patients with cystic fibrosis and one non CF individual. Ps. aeruginosa specific-phage were present in sputum at concentrations ranging between 10^9 to 10^10 viable particles/ml with as many as 14 different phage strains recovered from a single individual. Of the 16 phage isolates, at least 12 different phage strains could be identified based on bacterial host sensitivity and electron microscopic morphology. It would appear that Ps. aeruginosa and its phage commonly coexist at the site of human bronchopulmonary infections, and most probably at all sites of Ps. aeruginosa infection, and should be considered as possible factors influencing the pathogenicity of Ps. aeruginosa.

1082 EFFECTS OF PERIODONTAL MIDDLE EAR EFFUSION (PME) ON DEVELOPMENT OF SPEECH AND LANGUAGE (S&L). David W. Deeds, Jerome O. Klein, Bernard Komerer and Team from Greater Boston Otitis Media Project. Boston Univ. School of Medicine, Dept. of Pediatrics, Boston City Hospital, and Harvard Medical School, The Channing Laboratory, Boston.

To determine effects of PME occurring during the first 3 yrs. of life, we administered tests of S&L to 218 3 y.o., white, English-speaking children with normal developmental histories. All had been followed prospectively since birth; we stratified according to duration of PME, sex, type of health-care, and socio-economic status (SES). Below are selected results for children with PME (130+ days) and those without PME (300+ days) in a suburban, private practice (I) and an urban clinic (II).

| Test | I 130+ < 50 | P | II 130+ < 50 | P |
|------|------------|---|-------------|---|
| PPVT | 106 | 114 | .08 | 92 | 95 | NS |
| PSLS-AC | 121 | 135 | .004 | 116 | 115 | NS |
| PSLS-VA | 113 | 130 | .006 | 115 | 112 | NS |

PPVT = Peabody Picture Vocabulary Test
PSLS = Pre-School Language Scale
AC = Auditory Comprehension VA = Verbal Ability

These data suggest that PME early in life is associated with significant impairment of S&L; children from higher SES appear at greater risk. This study does not show if such effects are permanent or transient.

1083 DIFFUSION OF MOXALACTAM INTO CSF OF CHILDREN WITH BACTERIAL MENINGITIS. N. Chirouault, Joyce A. Buckley, Ralph K. Kaufman and Adama B. Djayani.
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Moxalactam (MOX), a new once-a-day-lactam antibiotic, is active against an expanded spectrum of gram negative organisms including Haemophilus influenzae. It has also been reported to diffuse into cerebrospinal fluid (CSF). We administered IV MOX to children (6 wks-4 yrs) receiving conventional antimicrobial therapy for bacterial meningitis. Plasma and CSF specimens were collected from 22 children in a 1980 summer outbreak of meningitis. Seventeen(77%) were <6 mos old(range 2 wk-9 yr). 54% had CSF cell count >250/mm^3 and 44% had protein >75mg/dl. Seventeen(77%) of CSF specimens contained enterobacteria. Eight patients was detectable in 5/11 of CSF specimens obtained later in the course of illness (2nd or 3rd day). MOX alone in the treatment of meningitis. Plasma and CSF specimens were collected from 22 children in a 1980 summer outbreak of meningitis. Seventeen(77%) were <6 mos old(range 2 wk-9 yr). 54% had CSF cell count >250/mm^3 and 44% had protein >75mg/dl. Seventeen(77%) of CSF specimens contained enterobacteria. Eight patients was detectable in 5/11 of CSF specimens obtained later in the course of illness (2nd or 3rd day). WBC count >500, and 2) entirely normal CSF.

1084 UNUSUAL LABORATORY FINDINGS IN ECCHOVIRUS-11 MENINGITIS. L. Murry Thompson, Margaret C. Fisher, Adalma Carmen O. Somoza, and James A. Sabin.
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Echovirus-11 (E-11) was isolated from the cerebrospinal fluid (CSF) of 22 children in a 1980 summer outbreak of meningitis. Seventeen(77%) were <6 mos old(range 2 wk-9 yr). 54% had CSF cell count >250/mm^3 and 44% had protein >75mg/dl. Seventeen(77%) of CSF specimens contained enterobacteria. Eight patients was detectable in 5/11 of CSF specimens obtained later in the course of illness (2nd or 3rd day). WBC count >500, and 2) entirely normal CSF.

1085 DIAGNOSIS AND TREATMENT OF PURULENT NASOPHARYNGITIS - A DOUBLE-BLIND, TWO-DRUG EVALUATION. James Todd, Nancy Todd, James Damato, Warren Todd & C. Henn.
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Coronavirus-like particles (CVLP) are associated with gastrointestinal disease and no other indication for specific treatment had proved satisfactory; bacterial and other virus infection and viral meningitis have been reported in children with CVLP. In this study, children with nasopharyngeal symptoms and no other indication for specific treatment were randomized to 4 treatment regimens: placebo; antibiotic (Amoxicillin); decongestant/antihistaminic (Ephedrine/triprolidine); and their corresponding placebo equivalents (A+,D+, A+D-, A-D+, A-D-). Follow-up parent, physician, and bacteriologic evaluations were performed after 5 days of therapy without change in the state of active or placebo groups of children. Children with nasopharyngitis and no other indication for specific treatment had proved satisfactory; bacterial and other virus infection and viral meningitis have been reported in children with CVLP. In this study, children with nasopharyngeal symptoms and no other indication for specific treatment were randomized to 4 treatment regimens: placebo; antibiotic (Amoxicillin); decongestant/antihistaminic (Ephedrine/triprolidine); and their corresponding placebo equivalents (A+,D+, A+D-, A-D+, A-D-). Follow-up parent, physician, and bacteriologic evaluations were performed after 5 days of therapy without change in the state of active or placebo groups of children. Children with nasopharyngitis and no other indication for specific treatment had proved satisfactory; bacterial and other virus infection and viral meningitis have been reported in children with CVLP. In this study, children with nasopharyngeal symptoms and no other indication for specific treatment were randomized to 4 treatment regimens: placebo; antibiotic (Amoxicillin); decongestant/antihistaminic (Ephedrine/triprolidine); and their corresponding placebo equivalents (A+,D+, A+D-, A-D+, A-D-). Follow-up parent, physician, and bacteriologic evaluations were performed after 5 days of therapy without change in the state of active or placebo groups of children.

1086 CORONAVIRUS-LIKE PARTICLES AND NEONATAL GASTROINTESTINAL DISEASE. Yvonne E. Vaughan, C. George Ray, Linda L. Munnich, Claire H. Payne, Donna J. Beck, Paula F. Lopa.
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Coronavirus-like particles (CVLP) are associated with gastrointestinal (GI) symptoms (e.g. in mammals, including man. We report an intensive care nursery (NICU) outbreak of GI sx associated with CVLP, identified by electron microscopy, in the stools of affected infants. Immune aggregation of stool CVLP occurred with sera of CVLP positive infants only. CVLP infection of stool CVLP, ascertained by 8 NICU-wide surveys over 40 weeks, fell from 67% to less than 10%, paralleling prevalence changes in the community. Most infants surveyed were premature. Overall, 362 (68%) of all G1 cultures contained CVLP. Neonatal or intrapartum acquisition was suggested by the finding that 342 (11/32) of the CVLP + infants were examined within 72 hours of birth. CVLP + infants were more likely to have GI sx within 7 da of survey (p<.005), including water loss stools (p<.005), and the following sx persisting for more than 2 days: gastric retention (p<.001), bilious gastric aspirates (p<.01), abdominal distension (p<.01), and gross or occult blood in the stool (p<.005). CVLP + infants were also more likely to have multiple sx and be hospitalized concurrently. We conclude that stool Coronavirus-like particles are associated with clinically significant GI disease in the newborn.