**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 10^10 to 10^14 viable particles/ml with as many as 4 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 PERSISTENT MIDDLE EAR EFFUSION (PME) ON DEVELOPMENT OF SPEECH AND LANGUAGE (S&L).

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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 (90+ days) in a suburban, private practice (I) and an urban clinic (II).

| Test | I: 130+ | 30+ | II: 130+ | 30+ |
|------|---------|-----|----------|-----|
| PPVT | 106     | 110 | 95       | 92  |
| PSLS-AC | 121 | 135 | .004 | 116 |
| PSLS-VA | 113 | 130 | .006 | 115 |

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.

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Seventeen(77%) were <6 mos old(range 2 wk-9 yr). 54% had CSF cell counts >500/mm^3 and 14% had >500/mm^3(range 0-2250). 59% had 250% of CSF glucose <45mg/dl, and 41% had CSF protein >45mg/dl and 6% had >75mg/dl. Three patients(pts) had entirely normal CSF. In 80% peripheral WBC was >5000/mm^3; only 20% had >20,000/mm^3. Cell count >500/mm^3 was as frequent in E-11 pts as in B pts. Peripheral WBC >5000 or <150/mm^3 and absolute band count >500/mm^3 were statistically associated with B but 39% of E-11 pts had one of these abnormalities.

**1084** UNUSUAL LABORATORY FINDINGS IN ECHOVIRUS-11 MENINGITIS.

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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 counts >500/mm^3 and 14% had >500/mm^3(range 0-2250). H. influenzae type b and only 8% polymorphonuclears(2) and 24% had >900%. None had CSF glucose <40mg/dl; 41% had CSF protein >45mg/dl and 6% had >75mg/dl. Three patients(pts) had entirely normal CSF. In 80% peripheral WBC was >5000/mm^3; only 20% had >20,000/mm^3. Cell count >500/mm^3 was as frequent in E-11 pts as in B pts. Peripheral WBC >5000 or <150/mm^3 and absolute band count >500/mm^3 were statistically associated with B but 39% of E-11 pts had one of these abnormalities.

**1085** DIAGNOSIS AND TREATMENT OF PURULENT NASOPHARYNGITIS - A DOUBLE-BLIND, TWO-DRUG EVALUATION.

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In summary, MOX diffuses into CSF but such diffusion is unpredictable. Caution must be exercised in using MOX alone in the treatment of meningitis.

**1086** CORONAVIRUS-LIKE PARTICLES AND NEONATAL GASTROINTESTINAL TINAL DISEASE. Yvonne E. Vacher, C. George Ray, Linda L. Münich, Claire H. Payne, Donna J. Beck, Paula F. Law; University of Arizona, College of Medicine, Department of Pediatrics and Pathology, Tucson, Arizona.

Coronavirus-like particles (CVP) are associated with gastrointestinal (GI) symptoms in mammals, including man. We report an intensive care nursery (NICU) outbreak of GI sx associated with CVP, identified by electron microscopy (EM) and/or immunofluorescent (IF) assay, in the stools of affected infants. Immune aggregation of stool CVP occurred with sera of CVP positive (+) infants only. Prevalence of stool CVP, assessed by IF assay on 8 NICU-wide surveys over 40 weeks, fell from 6% to less than 10%, paralleling prevalence changes in the community. Most infants surveyed were pre-mature of birth. Overall, 362 of 580 (62%) CVP positive infants were pre-mature or intrapartum acquisition was suggested by the finding that 342 (11/32) of the CVP+ infants were examined within 72 hours of birth. CVP+ 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), billious gastric aspirates (p<.02), abdominal distension (p<.01) and gross or occult blood in the stool (p<.005). CVP+ infants were also more likely to have multiple sx and have their sx for a longer period of time.

We conclude that stool Coronavirus-like particles are associated with clinically significant GI disease in the newborn.