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However, estimates of the magnitude vary considerably. For example; in Bangladesh PD morbidity rates range from 0.6 to 0.8%, in Guatemala a PD annual rate of 0.014/100 children was reported and in India, Vietnam and Zimbabwe reported rates were 6.3, 5.3 and 6.9%, respectively. This study was carried out from May through September, 1993, the months of greatest incidence of diarrhea to support and orient the activities of the Mexican Diarrhea Program. The reported prevalence of PD was obtained from a national representative cross-sectional household survey (methods published elsewhere) of children less than 5 years of age. Of the 29355 houses visited, in 7504 households at least one child younger than 5 years of age was found (N = 10 700 children).

Of the 10 700 children 1034 had diarrhea (defined as more than 3 liquid evacuations during 24 hours with or without blood) at the time of interview (prevalence rate, 9.6/100 children). Of these, 19 had PD (defined as diarrhea for more than 14 days), a prevalence rate of 1.8/100 children with diarrhea. Ages of children with PD ranged from 3 to 53 months (mean value, 22 months). The median length of diarrhea episodes was 24 days ± 6.7; range from 14 to more than 30 days (PD episode was determined considering outset, end and interview dates). The highest frequency was found in the 1 to 2-year-old group (36.8%) and in males (78.9%).

All 19 mothers of children with PD knew the recommended electrolyte solutions to use from information given by the Mexican Diarrhea Program and 75% used it during the episodes of diarrhea. In most cases oral rehydration solution was administered for 2 days, except for one case in which the patient received it for 7 days. Breast-feeding was suspended in 3 cases and only one child ceased the intake of food. The use of drugs was reported in 9 cases: antibiotics (6 children); antidiarrheics (2 children); and antiparasitics (1 child).

Based on the approximate 2% prevalence of PD among children with diarrhea, an estimated 4000 cases of PD could occur each year in Mexico among children less than 5 years of age. Although this study detected only cured or mild cases of diarrhea and PD rate could be underestimated because we considered only PD cases at the time of the interview, the importance of this study is that the reported PD prevalence rate was obtained from a national representative survey instead of studies in specific communities with captive populations, placing Mexico as a country with an intermediate risk for PD when compared with other developing countries.

Accepted for publication March 31, 1995.
Key words: Persistent diarrhea, Mexico.


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**HUMAN HERPESVIRUS 6 MONONUCLEOSIS AND SEIZURES**

To The Editors:

Human herpesvirus 6 (HHV-6) has been identified as the causative agent of exanthema subitum. In children this disease is often complicated by the presence of febrile seizures. HHV-6 is furthermore associated with seizures of a complex or recurrent course. In adolescents and adults HHV-6 infection may present with fever and mononucleosis but without seizures.

An 11-month-old boy was admitted to our hospital because of a complex seizure which lasted for more than 1 hour, despite two doses of diazepam and one of clonazepam. Only after 100 mg of phenytoin intravenously did the convulsion come under control. At the time of admission the boy had a temperature of 40.2°C, hepatomegaly, a slightly broadened mediastinum on the chest radiograph and hematologic abnormalities that prompted suspicion of leukemia. Anemia (Hb 9.5 g/dl), and leukopenia (leukocyte count 1.9 × 10⁹/liter) were present with 30% polymorphonuclear cells, 49% small lymphocytes, 6% atypical lymphocytes, 3% blast forms, 1% plasma cells and 11% monocytes. Platelet count was normal.

Because of the suspicion of leukemia the boy was referred to the Academic Hospital Nijmegen. A bone marrow aspirate showed normal bone marrow with 7% young monocytes. A second aspirate 4 days later was normal. These results were confirmed by the Dutch Childhood Leukemia Study Group.

The child was readmitted to the referring hospital for further evaluation of the underlying cause. Viral cultures taken at the first admission remained negative but serology was indicative for a recent HHV-6 infection (Table). Thus primary HHV-6 infection in young children may present with changes in peripheral blood indicative of mononucleosis and may be possibly confused with acute leukemia.

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TABLE 1. Serologic Investigations

CMV, HSV and VZV serology was performed by ELISA, expressed for IgG in AU and for IgM and IgA qualitatively. EBV and HHV-6 serology was performed by indirect immunofluorescence and expressed as titers (see Reference 4).

<table>
<thead>
<tr>
<th>Time after Onset of Febrile Convulsion</th>
<th>CMV</th>
<th>EBV-VCA</th>
<th>HHV-6</th>
<th>HSV</th>
<th>VZV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IgG (AU)</td>
<td>IgM</td>
<td>IgA</td>
<td>IgG</td>
<td>IgM</td>
</tr>
<tr>
<td>Day 3</td>
<td>88</td>
<td>Neg</td>
<td>Neg</td>
<td>&lt;1:8</td>
<td>&lt;1:10</td>
</tr>
<tr>
<td>Day 6</td>
<td>NT</td>
<td>Neg</td>
<td>Neg</td>
<td>&lt;1:8</td>
<td>&lt;1:10</td>
</tr>
<tr>
<td>4 months</td>
<td>92</td>
<td>Neg</td>
<td>Neg</td>
<td>&lt;1:8</td>
<td>&lt;1:10</td>
</tr>
</tbody>
</table>

Neg, negative; NT, not tested; CMV, cytomegalovirus; EBV, Epstein-Barr virus; VCA, viral capsid antigen; HSV, herpes simplex virus; VZV, varicella-zoster virus; AU, arbitrary units.


ALCALIGENES XYLOSOXIDANS-ASSOCIATED INFECTION IN AN INFANT WITH CHOLESTEATOMA

To the Editors:

Alcaligenes xylosoxidans is emerging as an important nosocomial pathogen, predominantly among immunocompromised patients.3,4 We report on, to our knowledge, the first case of A. xylosoxidans chronic otitis media with cholesteatoma in a nonimmunocompromised child.

In January, 1994, a 6-year-old girl was referred to the Robert Debré Pediatric University Hospital in Paris for otalgia and otorrhoea. She also complained of headache and vertigo. Examination revealed a purulent discharge in the right external auditory canal and a right-sided otitis media. The discharge persisted despite various antibiotic therapies including local colistin and two 10-day courses of oral amoxicillin-clavulanate (50 mg/kg/day). She complained of an increasing postauricular pain and returned in April, 1994, for further investigation. On admission otoscopic examination revealed a stenotic right external auditory canal. Medial to the stenosis was a massive cholesteatoma with obliteration of the middle ear. The cholesteatoma was treated by surgical excision. Cholesteatoma was confirmed histologically. The patient recovered after 7 days of treatment with intravenous piperacillin (300 mg/kg/day).Culture of the ear discharge in January and then pre- and postoperatively in April showed heavy growth of Gram-negative microorganisms on nutrient agar. It was identified as A. xylosoxidans subsp. xylosoxidans using API 20 NE (Profile No. 1042477). Sensitivity to antimicrobials was determined by the disk diffusion method. The organism was susceptible to ticarcillin, piperacillin, ticarcillin plus clavulanic acid, ceftazidime and imipenem but was resistant to cefazolin, cefotaxime, amoxicillin-clavulanate, aztreonam, pefloxacin, ciprofloxacin and aminoglycosides.

The three isolates obtained from our patient were compared with six unrelated isolates by the randomly amplified polymorphic DNA (RAPD) method. A. xylosoxidans was subcultured overnight at 30°C on trypticase agar plates. A single colony was inoculated into brain-heart infusion broth and grown overnight at 30°C. Cells were pelleted by centrifugation and washed in saline; after further centrifugation the supernatant was discarded and the cell pellet was resuspended in distilled water at OD_{600 nm} 1. This suspension was used in the amplification reaction. The polymerase chain reaction primer 5'-GCC CCC AGG GCC ACA GT-3' was used for the RAPD procedure adapted from the procedure of Williams et al.3 The amplification procedure was done as reported previously.4 The three isolates obtained from our patient exhibited indistinguishable patterns (Fig. 1, Lanes 3 through 5). The six epidemiologically unrelated isolates produced distinct pattern (Lanes 2 and Lanes 6 through 10). Before the current study RAPD analysis had not been applied to the study of A. xylosoxidans isolates in pediatric patients.

A. xylosoxidans (formerly Acromobacter xylosoxidans) is a nonfermentative Gram-negative bacterium. The organism is isolated from a wide variety of aquatic environmental sources. This microorganism is generally considered innocuous in clinical settings; however, during the last decade a number of sporadic cases of human infections caused by this organism have been reported.1 Colonization and/or infection occur in immunocompromised patients through contaminated water, antiseptic solutions, materials or wet surfaces.1,2,5 A. xylosoxidans has been described as the etiologic agent in cases of catheter-associated infection in an infant,5 meningitis6 and bacteremia.1,5 A. xylosoxidans has not been reported previously as a pathogen in chronic ear discharge with cholesteatoma.7,8

The pathogenic character of an opportunistic organism is related to the persistence of the same clinical strain when several samples were cultured. Until recently epidemiologic studies of A. xylosoxidans have been based essentially on the study of phenotypic traits. However, none of these methods has been found to be really satisfactory for the typing of A. xylosoxidans because of the insufficient discrimination, poor reproducibility or lack of availability of

![Fig. 1. A. xylosoxidans DNA fingerprinting by Random PCR.](image-url)