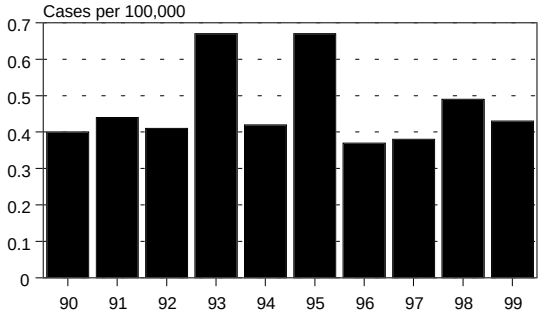
ENCEPHALITIS

CRUDE DATA	
Number of Cases	39
Annual Incidence[a]	
LA County	0.43
California	N/A
United States	N/A
Age at Onset	
Mean	37
Median	36
Range	0-84 yrs
Case Fatality	
LA County	28%[b]
United States	N/A

Figure 19

Encephalitis
Incidence Rates by Year
Los Angeles County, 1990-1999



[a] Cases per 100,000 population.
[b] Excludes AIDS encephalopathy cases.

ETIOLOGY

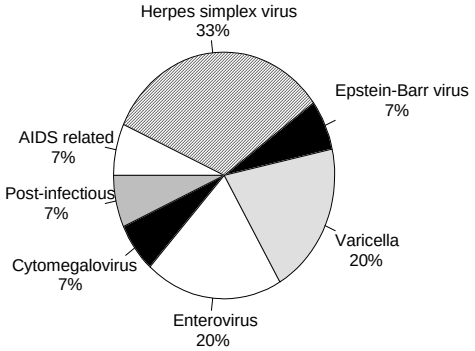
Encephalitis, an inflammation of the brain, causes headache, stiff neck, fever and altered mental status. It can result from infection with a number of different agents including viral, parasitic rickettsial, bacterial and chemical. Public health surveillance is limited to cases of suspected or confirmed viral etiology, and includes primary and postinfectious encephalitis. The etiologies of cases reported in 1999 are shown in Figure 20.

DISEASE ABSTRACT

The 1999 incidence of viral encephalitis remains in the range seen during non-epidemic years. The highest age-specific incidence rate (1.10 cases per 100,000 population) was observed in children less than one year of age, followed by the 1-4 age group (1.08 per 100,000), then those over 65 years (1.00 per 100,000). The male-to-female rate ratio was 1:0.89. Whites had the highest crude incidence rate (0.60 cases per 100,000 population), followed by Asians, Blacks and Hispanics (0.45, 0.39, 0.26 cases per 100,000 population, respectively). Cases of encephalitis occurred throughout Los Angeles County, with Harbor, Pomona and San Fernando districts having the highest rates (1.41, 0.92 and 0.81 cases per 100,000 population, respectively).

Figure 20

Etiology of Encephalitis Cases, 1999
N=15



*Sixty-two percent of encephalitis etiologies were not identified.

COMMENTS

Despite the fact that the Public Health Laboratory provides free testing of clinical samples, few are submitted, and the etiologic agent for most cases is not identified. In 1999, the etiology was unknown for 62% of reported cases.

Of particular public health concern in LAC are the arthropod-borne (arboviral) encephalitides, especially those due to St. Louis encephalitis (SLE) and Western equine encephalitis (WEE) viruses. Since 1985, sporadic cases of SLE have been reported, following an outbreak of 16 cases in 1984. The potential for another SLE outbreak exists, as the sporadic cases in previous years and identification of SLE in sentinel animal populations indicate that the virus is now endemic in LAC. The annual mosquito-borne encephalitis surveillance program consists of surveillance for equine cases of WEE, monitoring of mosquito populations, laboratory testing of mosquitoes for WEE and SLE viruses, and twice monthly testing of sentinel chicken flocks for SLE and WEE seroconversion. Elimination of standing water and proper maintenance of ponds and swimming pools decrease the available sites for hatching and maturation of mosquito larvae. The State of California Mosquito Abatement Districts monitor and control populations of these insects.