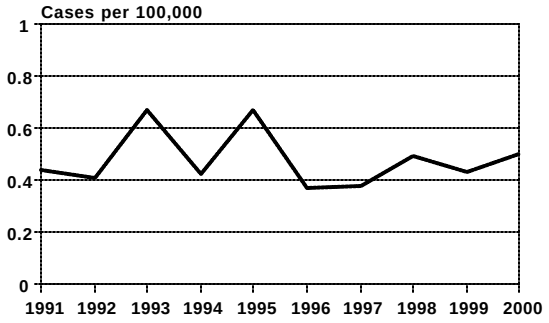
ENCEPHALITIS

CRUDE DATA	
Number of Cases	46
Annual Incidence [a]	
LA County	0.5
California	N/A
United States	N/A
Age at Onset	
Mean	31 years
Median	18 years
Range	0 - 90 years
Case Fatality	
LA County	20% [b]
United States	N/A

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

Figure 21

Encephalitis
Incidence Rates by Year
LAC, 1991 - 2000

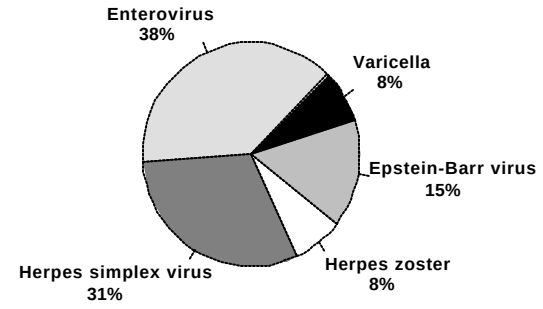


ETIOLOGY

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 post-infectious encephalitis. Of special concern is arboviral (mosquito-borne) encephalitis, which can be prevented by personal protection and mosquito control activities. The etiologies of cases reported in 2000 are shown in Figure 22.

Figure 22

Encephalitis
by Etiology
LAC, 2000 (N = 14)



*Note: the etiology of the encephalitis was not identified in 70% of cases.

DISEASE ABSTRACT

- The 2000 incidence of viral encephalitis (46 cases; rate = 0.50 cases per 100,000) is in the range seen during non-epidemic years.
- Of the 46 cases, 22 (48%) were in children aged less than 14 years, 13 (28%) were in persons aged 15 - 34 years, and 11 occurred in persons aged 55 years or greater.
- Cases were about evenly split between females (24) and males (22).
- While cases occurred throughout LAC, SPA 3 had the most (12), followed by SPAs 7 and 8 (each with 8 cases).
- The etiology of the encephalitis was not identified in 70% of cases.

COMMENTS

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. In addition, the state of California began to include testing for West Nile virus in its surveillance system beginning in 2000.

Despite the fact that the Public Health Laboratory provides free testing of clinical samples for arboviral encephalitis, few are submitted, and the etiologic agent for most cases is not identified. The California Encephalitis Project of the California Department of Health Services also provides enhanced diagnostic testing as part of an ongoing study. In 2000, the etiology was unknown for 70% of reported cases. Determining the etiology of encephalitis allows public health to follow disease trends, to notify the community of increased disease risk, and to implement prevention efforts.

Prevention measures for arboviral encephalitis consist of personal protection, including use of screens on windows, avoiding mosquito-infested areas, especially at dusk, when most mosquitoes are active, wearing protective clothing and use of insect repellents. 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 and special Mosquito Abatement Districts monitor and control populations of these insects, especially in public-use areas.

ADDITIONAL RESOURCES

http://www.cdc.gov/ncidod/diseases/list_mosquitoborne.htm (for mosquito-borne)

http://www.nlm.nih.gov/medlineplus/encephalitis.html (for consumers)

http://www.postgradmed.com/issues/1998/03_98/guti.htm (more detailed information, list of causes)

http://lapublichealth.org/acd/procs/b73/b73index.htm

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