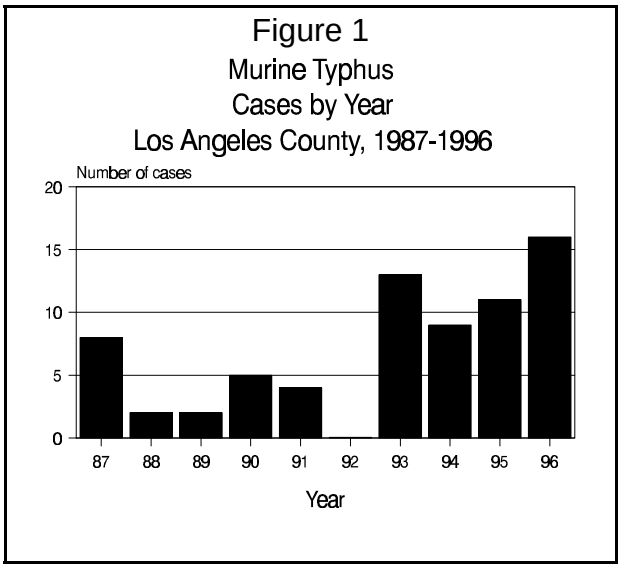
TYPHUS, MURINE

Murine typhus is caused by a bacteria, *Rickettsia typhi*. Symptoms include high fever, severe headache, myalgias, and sometimes a fine maculopapular rash. Occasionally, other complications such as hepatitis, splenitis and cerebritis may occur. Fatalities are uncommon, occurring in less than one percent of cases.



Since 1993, there have been increased reports of murine typhus, possibly following a fatal case that year which led to increased awareness of the disease (Figure 1). In 1996, sixteen cases of typhus were reported. Seven cases were male and nine female. Ages ranged from 26 to 62 years, with a mean of 41 years. Cases have onset throughout the year, but occur more often in the spring and summer months. Murine typhus is endemic in the foothills of central LAC. In 1996, cases occurred in Alhambra (4), Foothill (4), Glendale (2), and Northeast (6) Health Districts.

The most common mode of human infection is by introduction of infectious fecal matter from fleas into the bite site or adjacent areas which have been abraded by scratching. Introduction of the rickettsiae via mucous membranes or inhalation of the dried fecal matter of fleas is also thought to be possible. Murine typhus cannot be transmitted from person to person. All but one of the 1996 cases recall flea bites or contact with animals (dogs, cats, opossums and rats) that carry fleas.

COMMENTS

Each case of murine typhus is carefully interviewed regarding potential exposures. If permitted, field studies of the property where exposure occurred and surrounding areas in the neighborhood are conducted. Local residents are also contacted and provided with education about typhus and prevention of the disease.

Treatment with antibiotics hastens recovery and lessens the chance of complications. The nonspecific clinical presentation and the lack of a definitive test during the acute phase of the illness make the early diagnosis of murine typhus difficult. None of the available diagnostic tests including complement fixation (CF), enzyme-linked immunosorbent assay

(ELISA), indirect fluorescent antibody (IFA) and latex agglutination (LA) show positive results before the second week of illness. Thus, diagnosis of murine typhus depends on the clinical acumen of the treating physician, and is often confirmed after the patient has recovered. Accurate reporting of typhus or suspect typhus cases is important to identify endemic areas in LAC which can be monitored for the presence of disease in the animal populations and to institute control measures.