tories in Arizona, California, New Mexico, Oregon and Washington and at some Indian Health Service Hospitals. State health departments in other states can arrange FA testing at the Centers for Disease Control. We urge physicians caring for persons suspected to have plague to consult with their state health department as soon as the diagnosis is considered. This will facilitate diagnosis and allow for early public health action to prevent additional cases.

Survival Rate

The reference cited[2] in the April article and our own data do not support the 10% survival rate given for plague pneumonia. In New Mexico there have been 171 human cases reported to date. Eighteen (11%) cases were recognized with secondary plague pneumonia; six (33%) survived and poor survival was usually a result of delayed recognition of the etiologic agent. Pneumonic plague does respond to appropriate antimicrobial therapy and is not necessarily fatal.

Prevention

In the article, chemoprophylaxis was recommended for asymptomatic household contacts of both bubonic and pneumonic plague cases. The rare situation of co-primary cases within a household was cited as the basis for this recommendation. However, these clusters represented exposure to the same environmental risk factors and not person-to-person spread. Because of the potential for airborne transmission, abortive antibiotic therapy is indicated for face-to-face contacts of patients with plague pneumonia. Similar therapy for household contacts of bubonic plague cases is usually unwarranted and should be decided on a case-by-case basis. Because of the importance of the environment, when the illness is acquired near home, we encourage local pest control measures for all residents in the area.

History

It was stated that the largest and most recent epidemic of plague in the United States occurred in San Francisco in 1901. This outbreak was the largest but there have been two subsequent outbreaks: Oakland, California, in 1919 and Los Angeles, in 1924.[3]

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3. White ME, Gordon D, Poland JD, et al: Recommendations for the control of Yersinia pestis infections. Infect Control 1980; 1:324-329

Dr Ganem Responds

TO THE EDITOR: Dr Hull and his associates raise a number of useful points about the diagnosis and prognosis of plague, none of which importantly contradicts the substance of the points made in the April review.[1] As regards risk factors for acquisition, the importance of proximity to the animal reservoir is clearly stressed, and the list of specific occupational risk factors is explicitly indicated as illustrative rather than exhaustive (p 447). The specific circumstance of transmission from the wild animal reservoir to the home via pets was likewise noted (p 450).

I agree that fluorescent antibody testing of aspirates is likely to be superior to Gram stain when it can be carried out in a timely fashion; the virtue of the Gram stain is, of course, its immediate and universal availability, virtues not shared by any serologic test. All of us would, I am sure, agree that empiric therapy should be instituted on clinical and epidemiologic grounds without delay. As regards prophylaxis, the recommendations of Hull, Torok and Brown for pneumonic plague are identical to those set forward in the review. The issue of prophylaxis of bubonic plague contacts is obviously less straightforward: the relative infrequency of cases in household contacts was pointed out (p 450), but the more conservative practice of broader prophylaxis was advocated, as in other recent writings on the subject,[2] given the low risk and cost of this maneuver and the vagaries inherent in determining the sources of infection in any individual case.

Lastly, I am grateful to the authors for providing their latest mortality data and for amending my historical account by pointing out the Oakland and Los Angeles plague outbreaks.

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2. Boyce J: *Yersinia* species, chap 188. *In* Mandell GL, Douglas RG, Bennett JE (Eds): The Principles and Practice of Infectious Diseases. New York, John Wiley & Sons, 1985, pp 1296-1301

Correction: The Arizona Health Care Cost Containment System

TO THE EDITOR: My article on the Arizona Health Care Cost Containment System in the July issue[1] contains a typesetting error on page 117 under the heading "Quality." The sentence "The inclusion of indigents has not occurred" should read "The inclusion of *non*indigents has not occurred." (Or perhaps better, "Nonindigents have not elected to join any of the plans.")

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REFERENCE

1. Orient JM: The Arizona Health Care Cost Containment System—A prepayment model for a national health service? West J Med 1986 Jul; 145:114-119