

(consistent with state laws) and support over extended periods. To the extent that suicidal behavior or associated symptoms such as substance abuse, depression, or signs of excessive stress can be identified, help is available. A physician health program will intervene, rapidly if necessary, and offer treatment, relieving colleagues of this responsibility. Recognition of early warning signs

and prompt referral to the local program for help may prevent the ultimate tragedy of suicide.

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## Lessons from the Outbreak of Marburg Virus

**TO THE EDITOR:** We believe that Ndayimirije and Kindhauser's characterization of Watsa and Durba, the Democratic Republic of Congo, the locations of the first Marburg outbreak in Africa, as "two sparsely populated villages in a remote corner of the country" (May 26 issue)<sup>1</sup> is misleading. Watsa is a town. In Durba, there was a gold rush, with thousands of young men, often from an urban background, living in crowded conditions; there was a lot of traffic toward Uganda. Watsa and Durba are not cities, like Uige, but are different from the truly rural, remote, and sparsely populated border areas of Gabon and Republic of Congo that have been plagued by regular Ebola virus outbreaks.

The main differences in the Marburg virus outbreak in Watsa as compared with that in Uige are that in Watsa the outbreak was maintained by repeated introduction of the virus into the human population<sup>2</sup>; iatrogenic transmission (e.g., in pediatric services) had a minor role, so that the proportion of affected children was 10 percent,<sup>3</sup> as compared with an initial 75 percent rate in Uige<sup>4</sup>; the Watsa population was familiar with outbreaks of hemorrhagic fevers; and isolation of probable cases was achieved by persuasion; nobody attempted

to enforce isolation. As a result, panic levels were low and hostile reactions against medical teams an exception. Lessons can be learned from the Watsa outbreak that are relevant for urban settings such as Uige.

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## Epidemic Cat-Transmitted Sporotrichosis

**TO THE EDITOR:** Sporotrichosis is a fungal infection that occurs through traumatic inoculation of organic matter that is contaminated with *Sporothrix schenckii* and is usually limited to the skin and subcutaneous tissue. In North America, the infection is most commonly associated with scratches from thorn bushes. Occasionally, sporotrichosis has been associated with scratches or bites by animals, especially domestic cats. Little is known about canine and feline transmission of sporotrichosis.

The Evandro Chagas Clinical Research Institute is a referral center for infectious diseases in Rio de Janeiro. Since 1998, the institute has received an increasing number of cases of sporotrichosis in humans, dogs, and cats from the city of Rio de Janeiro and the surrounding areas.<sup>1</sup> Between 1986 and 1997, 13 cases of sporotrichosis in humans were recorded at the institute. Beginning in 1998, the number of cases increased steadily,<sup>2</sup> reaching a total of 759 cases in humans between 1998 and 2004, 83

percent of whom reported contact with cats that had sporotrichosis as a risk factor. Of these, 56 percent reported cat bites or scratches.

The lymphocutaneous clinical form of sporotrichosis was the most frequent, but rare presentations were also observed, including widespread cutaneous lesions and primary lesions of the conjunctiva and nasal mucosa. Associations with erythema nodosum and erythema multiforme were seen as well.<sup>2</sup> There were good responses to treatment with oral itraconazole at a dose of 100 mg per day, with rare adverse effects. Patients infected with the human immunodeficiency virus either had systemic sporotrichosis or cutaneous sporotrichosis or did not become ill after exposure to cats with sporotrichosis.

During the same period, 64 dogs and 1503 cats with sporotrichosis were treated at our institute. Canine sporotrichosis presents mainly as a self-limited mycosis with a favorable therapeutic outcome.<sup>3</sup> As with the humans affected in this epidemic, 85 percent of the dogs had a history of contact with cats that had confirmed sporotrichosis. Feline sporotrichosis has a broad spectrum, ranging from subclinical infection to severe systemic disease with hematogenous dissemination of *S. schenckii*. Sporotrichosis in cats always preceded its occurrence in both their owners and their owner's dogs. The zoonotic potential of infected cats was demonstrat-

ed by the isolation of *S. schenckii* from a feline skin lesion and claw fragments and material collected from the cats' nasal and oral cavities.<sup>4</sup>

Thus far, it is not known why sporotrichosis emerged as a zoonosis in Rio de Janeiro or why it reached epidemic proportions. We alert physicians in different specialties and veterinarians working outside the epidemic area to the possibility of seeing travelers with classic or even atypical manifestations of sporotrichosis and to the diagnostic challenges involved.

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