Whether *C. hongkongensis* belongs to the intestinal flora, as do *Bifidobacterium*, *Eggerthella*, *Eubacterium*, and *Lactobacillus* spp., remains undetermined. Codony et al. recently investigated by real-time PCR the presence of *Catabacteriaceae* in 29 water samples in the vicinity of Barcelona, Spain. Four samples were positive, demonstrating presence of this organism in the European environment and its probable enteric origin (*4*).

Because our patient sought treatment with severe infection associated with isolation of other pathogenic bacteria, whether blood infection by *C. hongkongensis* may be responsible for such a fatal outcome is unknown. Nevertheless, we can exclude sample contamination by this anaerobic bacteria for the 2 following reasons. First, anaerobic contaminants are rare in blood cultures and generally involve *Propionibacterium acnes*. Furthermore, the rapid growth of the present isolate in blood cultures within 3 days suggested a relatively high bacterial load in the blood sample.

Our report confirms that *C. hongkongensis* can be found in blood culture associated with gastrointestinal disease and may reflect intestinal perforation. Identification may be difficult. Isolation of motile gram-positive anaerobic bacillus together with catalase positivity should lead to suspicion of *C. hongkongensis* in clinical laboratories. Full identification of this pathogen requires 16S sequencing. Environmental reports have demonstrated the presence of this organism in human wastewater in Europe, which suggests that it may be universally present as part of the normal human gastrointestinal flora.

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Endemic Angiostrongyliasis, Rio de Janeiro, Brazil

To the Editor: The nematode *Angiostrongylus cantonensis* (rat lung worm), a zoonotic parasite that can accidentally infect humans and cause eosinophilic meningoencephalitis, has the Norway rat (*Rattus norvegicus*) as one of its most frequent definitive vertebrate hosts (*1*). Adult worms live in the pulmonary arteries of the definitive hosts, which excrete first-stage larvae in their feces. Intermediate hosts, such as snails and slugs, are infected by first-stage larvae, which reach the infective third stage after 2 molts. Third-stage larvae are then ingested by rats as they feed on the intermediate hosts, thus closing the life cycle. Humans become infected by eating raw or undercooked snails and slugs and through paratemic hosts and vegetables contaminated with infected snail mucus (*2*).

In Brazil, the first 3 documented cases of eosinophilic meningoencephalitis occurred in 2007 in 2 cities in the southeastern state of Espírito Santo (*3*). In 2009, a new case was reported in Pernambuco in the northeast region (*4*). Only intermediate hosts have been found naturally infected with rat lung worm in Brazil. Infected terrestrial and freshwater snails of the species *Achatina fulica*, *Sarasinula marginata*, *Subulina octona*, and *Bradybaena similaris* in Espírito Santo; *A. fulica* and *Pomacea lineata* in Pernambuco; and *A. fulica* in Rio de Janeiro and Santa Catarina have been reported (*3*,*5*,*6*). Thus, because of the recent cases of eosinophilic meningoencephalitis in Brazil and the occurrence of naturally infected *A. fulica* snails in Rio de Janeiro, we investigated the existence of potential natural reservoirs for the parasite in São Gonçalo.

São Gonçalo (22°48′26.7′′S, 43°00′49.1′′W) is a densely populated city (≈1 million inhabitants) with a tropical Atlantic climate (14°C–35°C) that is part of the metropolitan region of Rio de Janeiro. Two collections were made in March and June 2010. Forty live traps (20 Tomahawk [Tomahawk Live Trap Company, Tomahawk, WI, USA] and 20 Sherman [H.B. Sherman Traps Inc., Tallahassee, FL, USA] traps) were placed along two 30-m transects for 4 consecutive nights (Brazilian Institute of Environment and Renewable Natural Resources license no. 2227–1/2010) in an urban area where *A. fulica* snails had been collected in high numbers. Twenty-seven Norway rats (16 males) were captured. We collected 265 adult lung worms from the pulmonary arteries of the captured animals, fixed the worms in 70% ethanol, and taxonomically identified them as *A. cantonensis* on the basis of the large size of the spicules and the patterns of the bursal rays (*7*). Voucher specimens have been deposited in the Helminthological Collection of the Oswaldo Cruz Institute (no. 35712). Nineteen (74%) rats were infected; mean intensity and mean abundance were 13.52 ± 2.36 and 9.81 ± 1.96, respectively.

To confirm the morphologic identification of the *Angiostrongylus* specimens obtained, a DNA bar coding approach was used. DNA was extracted from 3 ethanol-preserved adult worms previously recovered from the pulmonary arteries of a naturally infected Norway rat, PCR-amplified, sequenced for a partial region of the COI gene (*8*), and subsequently compared with available GenBank *Angiostrongylus* spp. sequences. The three 360-bp COI sequences obtained (GenBank accession no. HQ440217) were Clustal-aligned (www.clustal.org) with homologous COI fragments of *A. cantonensis* (GenBank accession no. GQ398121), *A. vasorum* (GenBank accession nos. EU493162, EU493163, EU493166, EU493167), and *A. costaricensis* (GenBank accession no. GQ398122) and subjected to phylogenetic analysis. *Ancylostoma tubaeforme* (GenBank accession no. AJ407940) was used as the outgroup. Haplotypes for *A. vasorum* isolates from Brazil (*A. vasorum* 5421, 5641, and 5642) were reconstructed from published information (*9*) and included in the alignment. We used MEGA4 (www.megasoftware.net) to construct a neighbor-joining phylogenetic tree based on Kimura 2-parameter (K2-p) distances (Figure). The 3 *A. cantonensis* specimens from São Gonçalo, Rio de Janeiro, yielded a single haplotype, which formed a clade with the *A. cantonensis* haplotype from the People's Republic of China with low genetic distance (K2-p 0.038) and high bootstrap support (98), thus confirming the morphologic identification. Comparisons with the other 2 *Angiostrongylus* species yielded higher genetic distance values (K2-p 0.120, with *A. vasorum*, and 0.149, with *A. costaricensis*).

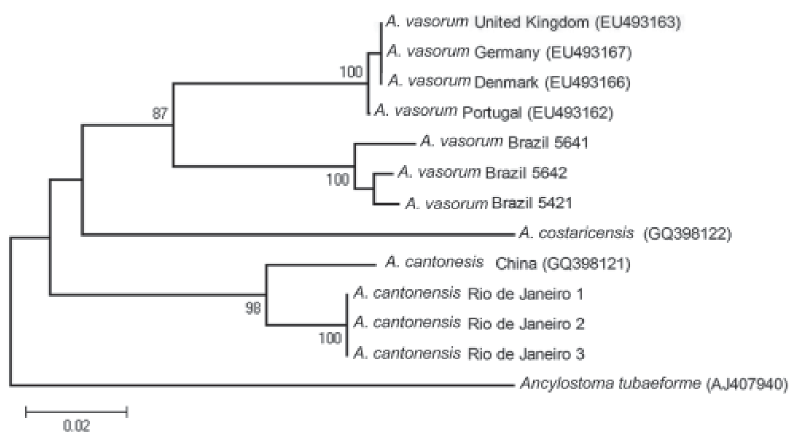

Figure. Neighbor-joining phylogenetic tree based on Kimura 2-parameter (K2-p) distances that includes all *Angiostrongylus* COI sequences in GenBank and the sequences obtained from 3 *Angiostrongylus* specimens recovered from the pulmonary arteries of a naturally infected Norway rat (*Rattus norvegicus*) from São Gonçalo, Rio de Janeiro, Brazil, 2010. The specimens yielded 1 haplotype, which clustered together with the *A. cantonensis* haplotype from the People's Republic of China with a low genetic distance (K2-p 0.038). Scale bar indicates 0.02 K2-p genetic distance.

These results indicate that *A. cantonensis* lung worm infection is enzootic among the exotic Norway rat population in the region studied. The natural infection rate of 74% is the second highest reported among 14 severely *A. cantonensis* infection–endemic regions (*2*). These findings, together with the observation of dense populations of *A. fulica* snails in urban areas of the country (*10*), call attention to the risk for disease transmission to humans, given that Norway rats also are likely to be present in these areas.

Local residents should be informed about disease transmission and prevention, and physicians should consider *A. cantonensis* lung worm infection in the differential diagnosis when appropriate. Although public health authorities should consider implementation of surveillance and control strategies to reduce the populations of snail and rat hosts, a better understanding is needed of the epidemiologic significance of these findings, which can be attained through studies to identify human cases of eosinophilic meningitis in the region.

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Aircraft and Risk of Importing a New Vector of Visceral Leishmaniasis

To the Editor: Kala-azar, or visceral leishmaniasis, is a parasitic disease that leads to fever, anemia, and hepatosplenomegaly. Death is the usual outcome when infection is not treated. The majority of infections are caused by the protozoan *Leishmania donovani*, restricted to India and eastern Africa, but the most widespread are caused by *L. infantum*, found from People's Republic of China to the New World, where it infects humans, dogs, and wild canids. All Mediterranean countries are affected by *L. infantum*, where most patients are co-infected with HIV. Several species of sand flies transmit the disease (*1*).

During the 1980s, urban transmission of kala-azar became a major problem in Brazil. More than 3,000 cases are reported annually, and the disease has spread from northeastern Brazil westward to the Amazon region, as well as to the industrialized southeast. Several as yet unproven explanations for the urbanization of kala-azar in Brazil have been proposed (*2*), but whatever the reason, it is associated with proliferation of *Lutzomyia longipalpis* sand flies, which, in turn, are strongly associated with human environments. The vector can easily spread by entering buses or trains looking for food at night or for hiding places at dawn. Invasion of new areas by sand flies through transportation of ornamental plants has been observed (R. Brazil, pers. comm.), possibly by insect eggs or larvae being carried in organic matter.

Kala-azar has now reached the temperate Brazilian south and Argentina. This spread of the disease warns us of the danger of introduction in other temperate areas. Europe is particularly vulnerable because of the existing natural transmission of *L. infantum*. This risk is increased by recently created daily direct flights to Lisbon from Fortaleza, Natal, Brasília, and Belo Horizonte (Figure), Brazilian cities where epidemics of the disease have occurred. Lisbon is suitable to canine infection, and >10% of dogs may be infected (*3*). The climate is a barrier for the introduction of many vectors outside their normal range, such as *Anopheles gambiae* mosquitoes in temperate zones (*4*,*5*), but the threshold of change for *L. longipalpis* sand flies is minimal. The Mediterranean area is as dry as northeastern Brazil, where the disease is now highly endemic. Furthermore, the annual average temperature and