

T. solium tapeworm infection, but *T. asiatica* tapeworms could not be fully ruled out. Although *T. asiatica* tapeworms can differ morphologically from *T. saginata* tapeworms (6), the distinctions could not always be found in each strobila; thus, molecular analyses were required to clearly distinguish them (2, 7). We analyzed mitochondrial *cox1* of the *Taenia* tapeworm specimens and showed that the sequences clustered with *T. saginata* tapeworms reported from several Asia countries, but far from those of *T. asiatica* and *T. solium* tapeworms. Recently, human infections caused by hybrid infection with *T. saginata* and *T. asiatica* tapeworms in Laos were determined by sequencing the DNA polymerase delta region (8). Thus, for further studies, it may be useful to analyze not only the mitochondrial gene but also nuclear DNA.

Although epidemiologic surveys of *T. saginata* tapeworms have not been conducted in Myanmar, there is a strong possibility of the domestic occurrence of human taeniasis from consumption of undercooked beef or pork. Our report suggests that surveys of the prevalence and associated factors of human taeniasis are urgently needed in Myanmar.

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Strengthening of Surveillance during Monkeypox Outbreak, Republic of the Congo, 2017

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Reports of 10 suspected cases of monkeypox in Likouala Department, Republic of the Congo, triggered an investigation and response in March 2017 that included community education and surveillance strengthening. Increasing numbers of outbreaks suggest that monkeypox virus is becoming a more prevalent human pathogen. Diverse approaches are necessary for disease control and prevention.

On January 27, 2017, the Republic of the Congo Division of Disease Control was notified of 2 suspected human cases of monkeypox (MPX) in Likouala Department, in the northern part of the country, which prompted a local investigation. In March 2017, after 8 additional suspected cases were reported, the Republic of the Congo Division of Disease Control joined with external partners (World Health Organization, United Nations High Commissioner

for Refugees, US Centers for Disease Control and Prevention) and 2 Field Epidemiology and Laboratory Training Program trainees from the neighboring Democratic Republic of the Congo (DRC) to investigate suspected cases and strengthen epidemiologic surveillance in the region.

Although human cases of MPX are routinely reported in the DRC (1,2), cases are only sporadically reported in the Republic of the Congo; large outbreaks previously occurred in 2003 and 2011 in Likouala Department (3,4). Poor transportation and communication infrastructure in the region, in addition to competing public health priorities, have contributed to a paucity of knowledge among healthcare workers (HCWs) about MPX case recognition, notification, and reporting. Local HCWs unofficially report MPX, but inconsistent and incomplete case notifications continue to be a challenge.

MPX, a zoonotic orthopoxvirus, is a public health priority in regions of endemicity in West and Central Africa because of its clinical severity and potential for epidemic spread (1). The virus is a member of the same genus as variola virus, and the clinical presentation of MPX resembles that of smallpox, with the addition of lymphadenopathy (5). Symptoms include an initial febrile prodrome (1–4 days), followed by a disseminated vesiculopustular rash, which includes the palms of the hands and soles of the feet (6). Transmission occurs through contact with infectious lesions, contaminated fomites, or respiratory droplets (believed to be most common for human-to-human transmission) (6). When human-to-human transmission occurs, identification of persons who have had extensive contact with a MPX patient is critical to limit the spread of disease and prevent outbreaks.

During March 15–22, 2017, a total of 139 HCWs were trained in 7 towns throughout the study region. HCWs received training in MPX clinical characteristics and case recognition; case management; surveillance; and infection prevention and control, including donning and removal of personal protective equipment. Content for the training materials was derived from a 2000 World Health Organization MPX manual with contributions from subject matter experts, further revised after a similar training was conducted in DRC in 2010 (7). In addition, HCWs were provided with MPX investigation kits that included surveillance manuals, MPX-specific case investigation forms (which collect demographic, clinical, and exposure information), personal protective equipment, and sample collection supplies to enhance laboratory-based surveillance.

A nongovernmental organization (International Communication and Education Foundation, Homestead, FL, USA) provided community outreach and education. Educators from this organization held screenings of short films in Lingala (the local language) featuring families who had experienced MPX and local public health officials. The

educational films were designed to be interactive in nature; community members were encouraged to discuss, debate, and ultimately develop prevention mechanisms/lifestyle changes that will result in zoonotic disease prevention. Educators held screenings in 14 villages in Likouala Department and educated >1,160 community members.

During January–December 1, 2017, a total of 81 suspected MPX cases, 7 laboratory-confirmed cases, and 6 deaths from this disease were reported in Likouala Department. Outbreaks of measles and infection with varicella zoster virus, which are often confused with MPX virus infections, were reported in the region before and during the investigation period. Thus, it was difficult to determine if this is a true increase, an artifact of strengthened surveillance in March, or merely the endemic rate of MPX in the region.

Although enhancing disease surveillance was a priority during the outbreak, there remain numerous challenges to consistent MPX reporting. The Republic of the Congo lacks specific programs to adequately train and support HCWs, and capacity is hindered by the need to cover vast, inaccessible areas that have underdeveloped infrastructure and limited resources. Leveraging resources and reinforcing HCW capacity through ongoing training at the local level will be vital for improving surveillance and effectively responding to outbreaks in the area. Implementation of a surveillance program modeled in a manner similar to other MPX-endemic countries (such as the DRC) could be useful (8). In the absence of consistent laboratory diagnostics, detection of endemic MPX cases will require a more specific surveillance case definition (9). In addition, investing in training programs, such as the Field Epidemiology and Laboratory Training Program, could provide increased support. Finally, standardizing a multifaceted response that includes community education, for other countries where MPX outbreaks are most likely to occur, such as the DRC, Cameroon, and most recently, Nigeria, could be extremely useful.

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Zoonanthroponotic Transmission of Drug-Resistant *Pseudomonas aeruginosa*, Brazil

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We recovered VIM-2 carbapenemase-producing *Pseudomonas aeruginosa* isolates from an infected dog, its owner, and the domestic environment. Genomic investigation revealed household transmission of the high-risk hospital clone sequence type 233 in the human–animal–environment interface. Results suggest zoonanthroponotic transmission of VIM-2–producing *P. aeruginosa* in the household following the patient’s hospital discharge.

The One Health approach has gained worldwide recognition as a valuable way to address critical public health issues, including the problem of antimicrobial drug resistance at the human–animal–environment interface. Although numerous studies have provided substantial evidence of spread of antimicrobial drug–resistant bacteria from animals to humans, current investigations indicate that humans can transmit resistant pathogens to animals in a reverse zoonotic event, called zoonanthroponosis (1,2). Therefore, epidemiologic studies are needed to provide a better understanding of the dynamics of antimicrobial drug resistance transmission between animals and humans. In this study, we investigated an international hospital-associated clone of carbapenem-resistant *Pseudomonas aeruginosa* sequence type (ST) 233 circulating in the human–animal–environment interface of a household setting.

In December 2016, a 5-year-old male Lhasa apso dog was admitted to a veterinary clinic for treatment of head shaking and right ear pruritus. Severe ear canal inflammation and malodorous purulent discharge were observed during clinical examination. A carbapenem-resistant *P. aeruginosa* isolate was recovered from the infected ear (Table). A detailed account of the medical history revealed that the pet owner, a 50-year-old man, had a recent history of hospitalization (of ≈5 months’ duration) for severe traumatic brain

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