Brucellosis in Guangdong Province, People’s Republic of China, 2005–2010

To the Editor: Brucellosis is one of the most prevalent zoonotic diseases in the world. It is principally an animal disease, but globally, >500,000 human cases are reported each year (1). Transmission to humans occurs primarily through contact with infected animals and consumption of contaminated food (2,3). Persons with occupational exposure are at highest risk for brucellosis, in particular those performing husbandry activities, butchering, and livestock trading (4,5).

Although brucellosis has been eradicated from many industrialized countries, new foci of disease continually appear, particularly in parts of Asia (6–8). In China, 160,214 brucellosis cases were reported during 2005–2010; 90% of them occurred in 6 northern agricultural provinces: Hebei, Heilongjiang, Jilin, Neimenggu, Shanxi, and Shaanxi. Most cases occurred in 2005–2007, but cases continually appear, particularly in rural areas in Guangdong: 5 in Maoming, and Yunfu. Ten cases were reported from undeveloped rural areas in Guangdong: 5 in Zhaoqing, 2 in Yangjiang, and 1 each in Huizhou, Qingyuan, Meizhou, Maoming, and Yunfu.

A total of 42 Brucella isolates were cultured during 2005–2009, and all were identified as B. melitensis biovar 3. However, of 19 Brucella isolates cultured during 2010, a total of 13 were identified as B. melitensis biovar 3, 4 as B. melitensis biovar 1, and 2 as B. suis biovar 3. These results indicate a shift in species and biovar for Brucella spp. circulating in China.

References

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EID online wwwnc.cdc.gov/eid
We conducted a retrospective epidemiologic investigation of the 112 brucellosis cases reported during 2005–2010 to identify the vehicles and sources of infection. Among the cases identified, 33 (29.46%) patients had occupational exposure history: 13 were pig or goat butchers, 12 dairy farmers, 5 animal market workers in charge of leading the animals to and from transportation, and 3 mutton and pork sellers in wet markets. The remaining 79 (70.54%) cases were in patients who denied having contact with living animals. Among these patients were retired persons, housekeeping matrons, teachers, doctors, white collar workers, and the unemployed. However, 17 of these patients recalled having purchased or handled goat placenta to be prepared for home consumption or having eaten goat products through barbequing or hot pot. The other 62 could not remember if they had contacted with livestock or their products. These findings indicate that nonoccupational exposure may pose a risk for brucellosis infection among persons who handle fresh meat and meat products for home cooking.

In conclusion, Guangdong Province has become an emerging foci for brucellosis in China. The species and biovars of Brucella spp. circulating in this region are changing, and many persons are infected by nonoccupational exposure. Measures need to be taken by central and provincial governments to address these issues and prevent epidemics of brucellosis in humans.

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