

《郑州大熊猫死因：系感染弓形虫病》

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Bacteria and toxoplasma infection — which involves parasites in blood and body tissue — caused the death of a female giant panda at Zhengzhou Zoo, according to the findings of a monthlong investigation, zoo authorities confirmed on Wednesday.

But experts are still wondering how the panda became infected at the zoo, which is located in the capital of Henan province.

On Feb 9, Jinyi, the female panda, died at the age of 7. Since pandas are normally expected to live up to 25 years, the death aroused particular attention.

Tissue and fluid samples from Jinyi's body were sent to experts at the Changchun-based Veterinary Institute of the Academy of Military Medical Sciences in northeastern China.

They determined that Jinyi was infected by bacteria and suffered from toxoplasma, or parasites. Those conditions resulted in acute complications such as repeated vomiting and massive bleeding of the stomach and intestines. The panda eventually died of heart and lung failure.

But experts can't determine exactly which bacteria was responsible. They were unable to separate the most virulent bacteria from others because the zoo gave the panda antibiotics for possible infections.

"This is also the first time we found toxoplasma in a giant panda, so we know very little about the infection and its pathology as it relates to this animal," said Wang Chengdong, head of the animal management department at the China Conservation and Research Center for the Giant Panda at Wolong Giant Panda Reserve, Sichuan province, where Jinyi was originally raised.

Before Jinyi was sent to Zhengzhou in 2011 together with male panda Longsheng, the center gave her a thorough physical examination. During the years the pair lived at Zhengzhou Zoo, veterinarians were sent from Sichuan to examine the pandas once or twice each year, Wang said.

"But the exams did not include toxoplasma tests. Since we have now found the first case, we will include toxoplasma as one of the items of our examinations," he said.

Toxoplasma infection has been found in many mammals, including humans, and also in birds.

"Usually, toxoplasma will not cause death, according to my knowledge, but there are differences among different animal species. In the fox, for example, it may cause serious disease and death," Wang said.

Since mammals and birds can be hosts of parasites that lead to toxoplasma, it is unclear when and where Jinyi might have become infected.

In February, when the news of Jinyi's death came out, people who visited the zoo complained that the living environment of the giant pandas was foul, with unpleasant odors and visible animal waste that was not removed promptly.

But Wang said there is no direct relationship between the pandas' living environment and the infection.

