Consumption of contaminated venison suspected in cases of deer hunters with prion disease

April 23 2024, by Bob Yirka

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A small team of medical workers and researchers in the U.S. has
published a case study of two men, both deer hunters, who developed a rare prion disease. In their study, published in the journal *Neurology*, the group describes the symptoms of the two patients and how they died.

Prior research has shown that some wild animals, such as deer, can become infected with a type of prion disease known as chronic wasting disease. In humans, the resulting disease is known as Creutzfeldt-Jakob disease (CJD), also called mad-cow disease, when it is caused by eating infected beef.

Prion diseases come about when misfolding of prion proteins occurs in the nervous system. They all progress until the infected person dies. Prior research has shown that progression occurs due to initial misfoldings, which impact proteins in the same physical area, causing them to fold, and so on, resulting in propagation of the disease.

In the case study, a 72-year-old male was admitted to the University of Texas Health Science Center San Antonio. He reported that he had been experiencing confusion and emotional problems. Over time, he also began to experience other symptoms, such as seizures. He died just a month after admission. The patient was diagnosed with CJD.

The diagnosis was surprising because it reminded the team of another patient who had died contemporaneously from the same disease. A little detective work showed that the men knew each other and were both local deer hunters who had consumed venison.

The medical team suggests that two patients with the same rare disease at nearly the same time implies they had both eaten venison from the same animal or another in its group—an extremely rare case of novel animal-to-human transmission of chronic wasting disease.
The researchers acknowledge that they do not have proof of the disease coming from the same animals, but suggest more research is required both to better understand the disease in deer and its possible transmission to humans and to ascertain whether other hunters should be warned not to eat local venison.


2024 Annual Meeting poster: [www.aan.com/msa/Public/Events/...abstractDetails/56967](https://www.aan.com/msa/Public/Events/...abstractDetails/56967)

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