

Guinea pigs can be source of serious strep infection

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But animal-to-human transmission of this bacteria is rare, researcher says.

(HealthDay)—In the world of infectious diseases, one worrisome phenomenon is when an illness that originated in animals jumps over into people.

The process—known as zoonosis—is not uncommon and keeps researchers on their toes as they look for signs that an animal-borne disease might make inroads into the human population.

A new report focuses on just such a development—and the culprits in this case were guinea pigs. More specifically, they were guinea pigs infected with a bacteria known as *Streptococcus equi* subspecies *zooepidemicus*.

"Animal to human transmission of this bacteria is pretty rare," stressed study author Karen Gruszynski, a veterinary epidemiologist at the Virginia Department of Health in Richmond.

"There is nothing in our findings to be really alarmed about," she said. "But what we are trying to do is highlight the fact that a disease that we already knew people can get from exposure to horses or cattle can also be gotten from guinea pigs."

In animals, "Sez," as the disease is called, often provides little indication of illness other than swollen lymph nodes in the throat and neck region, Gruszynski said.

Prior human cases primarily have been linked to consumption of unpasteurized milk from infected cows or contact with infected horses. However, infected monkeys, cats and dogs have also been tied to human Sez infections, Gruszynski said.

Firm indications that guinea pigs may be tied to such infections stem from two recent cases reported by Gruszynski and colleagues in the January issue of *Emerging Infectious Diseases*.

Two related Virginia residents were hospitalized with worsening flu-like symptoms combined with muscle pain, nausea, fatigue, chills and respiratory issues.

One of them, a man, developed [acute kidney failure](#), pneumonia and respiratory failure. The other, an elderly male, developed [respiratory failure](#), pneumonia and multiple organ failure.

Both men ultimately recovered, following many weeks of hospitalization and subsequent rehabilitation.

A follow-up investigation revealed both had been exposed to guinea pigs before falling ill.

In the first instance, the younger man had recently purchased four guinea pigs, one of which soon died. The older patient had cleaned the guinea pigs enclosure a couple of days before becoming sick.

Subsequent genetic analyses conducted on samples from three of the guinea pigs and one patient revealed all shared the same strain of Sez.

"This infection is serious but, once tests and blood cultures confirm a case, it is definitely treatable with antibiotics," noted Gruszynski. "So what's important about this finding is that it identifies another source of transmission that doctors can look for." That can help speed up diagnosis and treatment, and help to prevent the risk of a larger outbreak, she explained.

Dr. Philip Tierno, a professor of microbiology and pathology at NYU Langone Medical Center in New York City, said that case studies like this highlight the importance of getting as much patient information as possible when trying to make a diagnosis.

"In these sorts of situations, it's always very, very important that patients are encouraged to outline their recent history in as much detail as possible, including exposure to pets and animals," he said. "In this case, the involvement of [guinea pigs](#) with this particular infection was unknown to people, including myself. So unless you get at the patient's specific history this bit of important information may never come to light."

Gruszynski said Sez infection in humans is limited to a handful of cases a year. People who are immuno-compromised, meaning they have an underlying health condition, are the most susceptible, she said.

More information: For more about animal-to-human disease transmission, visit the [U.S. National Institutes of Health](#).

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