

9-7-12 Rats, Rice and Rabbits

Oh, did I ever think of my mother recently! When we would visit my father's Aunt Margaret and Uncle George in Concord, NH, I loved their huge vegetable garden and the immaculate wood shop in the cellar. I loved the huge soapstone sink and when we opened the pantry cabinets, I also loved the mouse we would see scurrying away! It was so cute! Why was mother making that face of distaste? I was too young to understand that there were good reasons to not have mice in the house.

Decades later, I thought of my mother when two of my daughters asked me just the other day, "Mom, did you get that email from Marty about the weird and deadly disease people have contracted from staying at cabins in Yosemite Park? It has something to do with rodents."

I think they were kind of impressed when I asked, "You mean the hanta virus?"

"Yeah! That's it! How'd you know that?"

"Well, first let's talk about the incubation period because I'm guessing that your brother Marty is concerned because Eric and Joanna (my two youngest, now 27 and 26) stayed there back in July. I believe they are past the time of concern, having been home for more than two months now."

I couldn't wait to read the email, though, because it is so interesting, how these infectious diseases spread and the circumstances causing periodic outbreaks. I first learned about the hanta virus in a graduate school epidemiology class, as an example of how an illness can be culturally related. It was presented as this: if a culture's diet depended on grains, those grains, if not kept in tight durable containers, could attract rodents. It is the droppings, urine and saliva of the rodents that spread the disease. The teacher also implied his assumptions and correlation of poverty with these grain dependent cultures. Years of being a student had taught me that it is not wise to call the professor on poor judgment.

It might have made more sense for the teacher to describe the ways in which people and animals share the earth and how we can prevent disease while doing so. It is in those shared areas, such as sheds and barns, where something like the hanta virus is more likely and where it can be prevented, also. Mice enjoy the same things we do: food, shelter and water. Deny entry by sealing holes and cracks; store food in rodent-proof containers and prevent dripping water. They can always get a drink of water elsewhere, though, so preventing entry to buildings and sturdy storage containers are the two most important measures.

At the first sign of mouse droppings, set traps and again check for tiny cracks and holes to be sealed. When cleaning up an area of rodent infestation, it's important to wear gloves and a mask, as breathing in the aerosolized virus from dust contaminated with rodent urine and droppings is one way to become infected.

Vigilant housekeeping, best management practices and personal protection measures for cleaning staff and groundskeepers at the Yosemite Park could have prevented the recent outbreak of hanta virus pulmonary syndrome.

It's been around a long time but wasn't identified until a couple young healthy people happened to die a few days apart from the same sort of acute respiratory distress. It was 1993 and both were Navaho. It was shortly thereafter that I happened to be in an epidemiology class and, thus, was presented with the "cultural" explanation. After months of intense research and investigation, it was realized that after a longstanding drought, 1993 had brought much needed rain, renewed crops and a bumper crop of mice. That didn't have anything to do with the Navaho people. It wasn't our culture, either, here in New England that caused that overload of mice and chipmunks after a great year of acorns, following the depleted source of rodent food for several years in a row of the gypsy moth ravaging our oak trees! That's the swinging pendulum of nature and we have to keep our eyes open and respond to the changes.

Sometimes the appropriate response for one person varies from that of another. Sometimes there are occupational hazards calling for more protection. The groundskeepers in park services are one example. Here in New England, landscapers on Martha's Vineyard are advised to wear respiratory protection to prevent them from contracting tularemia, a bacteria sometimes carried by the cottontail rabbit, causing a serious and potentially fatal respiratory disease, as they mow and use machinery such as weed whackers.

Certain spheres of interaction between nature and humans are unavoidable, such as the shed or barn for people who ranch and farm. Or, even the woodpile for those of us who have fireplaces and wood burning stoves. If your life overlaps with that of wild animals and insects; be aware and take precautions. When it comes to rodents, though, I like the way the Center for Disease Control (CDC) sums it up: "It is wise, therefore, to avoid close contact with rodents in general."

Cathleen Drinan is the health agent for Halifax, MA. Her PCP, Dr. George Cuchural always asks about travel history and, as a result of that, once diagnosed the hanta virus in a South Shore man who had traveled to Arizona. Tell Cathleen your stories at 781 293 6768 or cdrinan@town.halifax.ma.us