

Commentary: This saltwater bacteria is deadly

By SHANNON TOMPKINS Copyright 2009 Houston Chronicle

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The first time I heard the word “vibrio” was more than 25 years ago. I haven't forgotten it.

Working as a reporter at a mid-size newspaper on the Gulf Coast, I heard about a local fisherman who had died a horrible death from an amazingly aggressive infection. Doctors who treated the man told the family the infection had been caused by a bacteria living in saltwater, and the guy had contracted the pathogen while fishing.

I don't remember whether the small cut through which the man contracted the pathogen was on his arm or leg. But even a quarter-century later, I vividly remember some of the details of the incident and the conversations with the man's family and the doctor who tried to save his life.

The doctor never had seen anything like what he encountered with this patient. The man was horribly ill when he came to the hospital, and the infection spread so quickly, the doctor said, he could almost see it progressing. They peeled huge strips of flesh, basically skinning the poor guy alive, trying to get to the deep muscle where the infection was rampaging and stop its spread.

They couldn't save him. Three days after he had gone bay fishing and come home with a reddening, aching little wound and two days after being admitted to the hospital, he was gone.

'Fisherman's hands'

The infection had been caused by a bacteria called vibrio vulnificus, the doctor said. They had isolated the bacteria in culture. It was from the same bacteria genus as cholera.

The doctor was familiar with vibrios. Vibrio cholera was the most well-known of the lot, of course. But two other members, vulnificus and parahaemolyticus, were also fairly common. They lived in saltwater.

Dermatologists along the coast had for years identified those two vibrios as a cause of what many called “fisherman's hands” or “oyster-shucker's hands” — an irritating rash/minor infection commonly seen on the hands and lower arms of commercial fishermen, particularly those who handled oysters. Those nicks, scrapes and cuts commercial fishermen got from fish fins and oyster shells gave the bacteria an entry point.

“Fisherman's hands” was more a nuisance than a serious health issue for most of those afflicted. Some antibiotics and a functioning immune system quickly took care of the problem.

If compromised, beware

But for some folks, vibrios — especially vulnificus — were serious trouble.

If vulnificus infected someone with a compromised immune system — someone with diabetes, cancer or liver damage such as cirrhosis or hepatitis — the infection could overwhelm them. Immune-compromised people who ate a raw oyster and ingested vulnificus with it could die of the resulting septicemia.

If the infection occurred on the skin or underlying tissue as through a cut, necrotizing fasciitis could develop, literally eating away deep muscle and other soft tissue, eventually causing organ failure and death.

That's what killed this fisherman in the early 1980s. He was diabetic, the doctor said. His immune system couldn't handle the attack.

The doctor seemed surprised at the effects of vibrio vulnificus. He said his research showed several other instances where infections through cuts that came in contact with saltwater resulted in infections and deaths.

One case he discovered involved a fisherman with a compromised liver who died from vibrio vulnificus.

The infection occurred when the man, who was fishing in a boat, had saltwater splash on his foot. He had athlete's foot, and that's all it took to give the bacteria entry.

A recent victim

Thoughts of my initial education about vibrio vulnificus came back this past week with the news that a man from my hometown, Jesse Shurley, 52, of Baytown, died from a vibrio vulnificus infection he got while fishing in Galveston Bay. The infection entered his body through a scrape on his leg.

Reports of Shurley's death triggered a lot of discussion about vibrio vulnificus, and rightly so. The more people know about the issue, the better decisions they can make.

Some thoughts and facts on vibrio vulnificus:

- Water quality is not a factor in vibrio vulnificus infections. The bacteria live in perfectly clean marine waters. The presence of vibrio vulnificus is not a sign that water is "polluted."

The bacteria are always in bay waters. And it lives only in saltwater.

- There is disagreement about the prevalence of vibrio vulnificus in coastal waters. Some research shows it present in almost all bay waters of the Atlantic and Gulf coasts at all times of the year. Others indicate higher numbers of the bacteria during warm-weather months. And it's just as likely to be found in water with lots of current as in low-current backwaters.

- Vibrio infections peak in July and August, leading some to believe the bacteria is more common during warm-weather months. But then, a lot more people swim and wade in the bays during August than during January.

- Many people believe vibrio infections are increasing and becoming more common. That might not be so.

Vibrio is not a new organism, and infections and deaths have occurred for decades but have been unreported or misdiagnosed.

Under the "old" system, Texas reported 86 cases of vibrio infections during the period 1990-98. For 2007, the state reported 60 cases. The seeming increase in vibrio cases is likely tied to better reporting by the medical community and through the Internet.

- Vibrio vulnificus is not something to ignore, but it's not a serious threat to the huge majority of anglers or others who enjoy coastal waters.

Anyone with a compromised immune system should immediately seek medical help if they notice swelling, redness or tenderness around a wound or even an insect bite that has been exposed to saltwater.

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