

'I'll just stay on it as long as I can ...'

Five years after taking his first anthrax shot, 19-year Navy veteran Patrick Kelly was forced into retirement by a rare form of cancer.

[BY BOB EVANS](#)

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Patrick Kelly was a rising star in the Navy, a junior-grade lieutenant who rose from entry-level seaman the hard way - working his way up without benefit of college or special programs.

The Navy calls these sailors "Mustangs." They're given special reverence as the modern-day embodiment of the old salts who'd find a way to get a job done, no matter the obstacles.

Kelly's 19-year career was studded with commendations for his ability to understand, enact and explain to others the ever-expanding use of computers on modern warships - a skill highly prized by admirals.

But his last three years in uniform, after inoculation with anthrax vaccine, were also marked with a series of ailments: chronic joint pain, impotence, rapidly deteriorating eyesight, sudden onset of asthma, chronic fatigue and then broken bones in his back - just from rolling over in bed.

Doctors finally figured out that Kelly had multiple myeloma, a rare form of cancer. It's an autoimmune disease in which the body produces too many plasma cells, destroying the person's healthy cells and bones in the process. Military doctors and other people told Kelly that his illness wasn't related to his anthrax shots.

But several medical experts say there's good evidence that the naysayers are wrong.

That evidence includes blood from retirees at the nation's key chemical and biological warfare lab, where nearly all workers are vaccinated for anthrax. Those samples show signs of a condition that precedes multiple myeloma.

It includes vials of vaccine contaminated with a controversial additive that causes severe autoimmune illnesses in lab animals. Several prominent vaccine researchers died from multiple myeloma after injecting themselves with similar additives.

SUCCESSION OF ILLS FOLLOWED VACCINATION



Multiple myeloma is a rare form of cancer, typically afflicting people ages 50 and older. Kelly was 47 when diagnosed - young, but not shockingly so.

No one knows what causes the excessive production of plasma cells within bone marrow that helps define multiple myeloma. Normally, plasma cells are part of the body's immune system, fighting infection and disease. But with too many, bones become excessively brittle. Victims can't fight infection and have frequent bouts of pneumonia.

Within three years, half die.

Kelly says his arm was tender for days after each of his first three anthrax vaccinations. After the fourth, his bicep swelled to twice normal size.

In the following months, Kelly bounced from one medical problem to another - each without a known cause, medical records show. In hindsight, all were indicative of autoimmune problems.

When he was finally diagnosed with multiple myeloma at Naval Medical Center Portsmouth in April 2003, Kelly says, he asked his doctor when it started. Dr. William Jawien, a Navy Reserve officer and cancer specialist, told him that he couldn't say for sure. But he estimated two to three years.

Kelly counted back and realized that was when he'd received his anthrax shots.

Jawien says he doubts a connection because there's no good scientific research proving a link. The connection isn't far-fetched biologically, though, he says. The anthrax shot, like many vaccines, activates B cells - white blood cells that make antibodies - to do its work. B cells gone berserk are a hallmark of multiple myeloma.

Pentagon officials in charge of the anthrax program say they don't know how many troops who received the vaccine have contracted multiple myeloma.

Before Kelly had multiple myeloma, he had a rare but undiagnosed blood condition known as MGUS - "monoclonal gammopathy of undetermined significance." It always precedes multiple myeloma.

Robert Kyle is a hematologist at the Mayo Clinic in Minnesota and one of the world's leading experts on multiple myeloma. He was the first to identify and study MGUS. He says he doubts Kelly's illness is related to the vaccine, but no one can be sure.

Kyle says people with MGUS don't always progress to multiple myeloma - only about 1 percent a year. "There has to be an additional factor to trigger the multiple myeloma." So far, those triggers have eluded scientists. "When it comes to the individual patient, there's absolutely no way of saying."

A number of researchers have theorized that vaccinations in general trigger the disease in people genetically predisposed. Kyle and others are skeptical.

One possible link between vaccines and MGUS surfaced last year. It was in a medical journal article by military researchers looking at possible side effects of the frequent vaccines given to troops.

They found that retirees from the Fort Detrick, Md., biological warfare laboratory had a "surprising" level of blood protein indicative of MGUS, after years of taking multiple vaccines to protect them at work. It was "the most important finding of this study," worthy of further investigation, they wrote.

Of the 155 people from Fort Detrick, 91.6 percent had received anthrax vaccinations.

A similar study of Fort Detrick workers in 1974 noted that one died of multiple myeloma. There was no mention of whether she had taken the anthrax vaccine. Oddities in blood were found then, too, but that was before MGUS had been identified.

H. Hugh Fudenberg is a former member of the National Institutes of Health's Task Force on Multiple Myeloma and Chronic Leukemia. He says health records of Fort Detrick workers that he examined about 20 years ago showed widespread evidence of MGUS.

Fudenberg is one of several experts on vaccines and autoimmune diseases who say Kelly's cancer very well might have been triggered by his anthrax shots - especially given the contamination involved. Kelly's medical records and findings by the Food and Drug Administration show that all five doses of anthrax that he received came from vaccine batches containing squalene.

Squalene is an oil that occurs naturally in the body. It's an essential ingredient for making cells and hormones, and it's also a controversial additive to vaccines. No vaccine containing squalene is licensed for use in the United States, though it's licensed overseas. The Defense Department has patented at least one squalene-based vaccine additive. The work was done at Fort Detrick.

Experiments with laboratory animals show that some, though not all, contract painful and debilitating autoimmune diseases after squalene injections.

Fudenberg and Pam Asa, a researcher at Tulane University in New Orleans, point out that a group of immunologists who pioneered vaccine additives such as squalene and other oils in the mid-20th century often injected themselves as part of their experiments. Several died of multiple myeloma, including the leader of the movement, researcher Jules Freund.

CONNECTION BETWEEN SQUALENE, ILLNESSES

FDA officials told Congress that the level of squalene found in samples of anthrax vaccine were too small to matter. But they admitted that they couldn't be sure. Samples from six batches of vaccine - totaling 1.2 million doses - tested positive.

Asa and other Tulane researchers say they've found a high correlation between veterans with autoimmune problems and doses from those batches. "There were a number of people on myeloma watches" in the mid-1990s, when she first began looking into the possible relationship of the drug and illnesses suffered by veterans of the 1991 Persian Gulf War, Asa says.

She and others have been fighting for money and data to look deeper - at bigger groups of patients, she says. But, she says, the government hasn't given those resources to researchers critical of the vaccine program.

The military and vaccine manufacturer deny that squalene was given to troops without their knowledge. They deny knowing how it got into the vaccine given to Kelly and others.

The Government Accountability Office, Congress' investigative arm, says the military experimented with squalene in anthrax vaccine before the Gulf War and considered giving it to troops then. The agency also says the head of the military program wouldn't cooperate with its investigation.

Kelly and other ill veterans say they think that the squalene in their vaccine was an experiment - just another example of the Pentagon using troops as guinea pigs.

"My concern is that this is going to be like Agent Orange," a plant-killing chemical used in Vietnam to destroy jungles and deny the enemy a hiding place, Kelly says. "They said for 30 years that Agent Orange wasn't anything."

Now the government has a list of 18 diseases and illnesses linked to Agent Orange. It estimates that 178,000 veterans will be disabled from it by 2008.

"This could be bigger," Kelly says. But given the military's refusal to admit mistakes, "we'll have to wait 30 years to find out."

Kelly probably doesn't have that kind of time. He's pushed the limits of living with multiple myeloma, though his cancer has stabilized in recent months, surprising a succession of doctors who say he has one of the tougher and stronger versions of the disease.

On a good day, he can muster just enough energy to take his kids to a doctor and make them dinner. They recently moved from Newport News to New Jersey, so relatives could help.

Kelly's one of two people left from a 10-patient test of a new drug, and he just hopes to hang on.

"I'll just stay on it as long as I can, as long as I'm stable," he says. "That makes for more time for them to develop another drug."

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