

The Wolfe Pack
The Nero Wolfe
Literary Society

THE FORENSIC WOLFE

by Emily Mikulewicz

Presented at the Nero Wolfe Assembly 1986

AS A MEMBER OF THE MEDICAL PROFESSION, when I see or read about something happening to someone, I usually think, "How can we help this person?" So, for example, when Bertha Aaron is strangled with Wolfe's tie in his office (eeny), and discovered not five minutes after Archie has left her, rather than watch Archie put fluffs of carpet in front of her nose, I'd like him to loosen the tie and get on with some CPR (Cardio-pulmonary-resuscitation). Likewise, when Vincent Pyle in (pois) reports vicious stomach pains and collapses, he is taken up- stairs and what primarily happens is messages go back and forth about how ghastly he is. I'd see him whisked off to the hospital and treated aggressively. But, of course, if these things did happen, we'd have three or four pages of a treatise on the treatment of strangulation or poisoning and we might save these people from dying, which we really don't want to do. So it's really all right with me if they drop like flies, though some of them don't appear to need to. The next interesting thing one might ask is, "Why do they die?" or "How do they die?" So I thought I'd look into some poisons and diseases that appear in the Corpus to discover how these people actually die. Take cyanide, for example - take it and "Hey, presto," you're dead. There has to be some mechanism for changing a living person into a dead one.

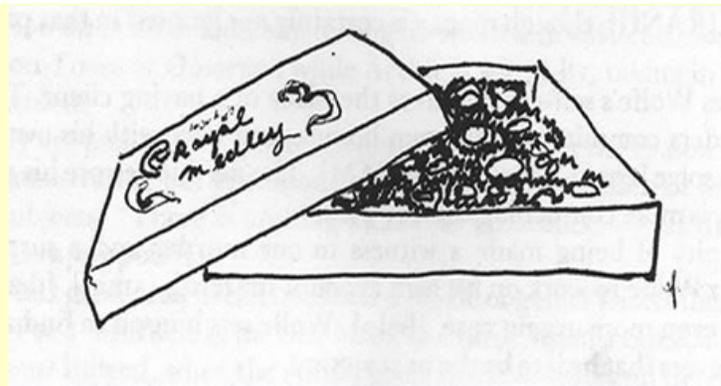
I mentioned in choir practice one evening that I was working on a talk on cyanide, arsenic, and so forth. It turned out that one of the altos was a sort of physiologist. She started speaking about cyanide to me in a language I didn't understand. She proceeded each Tuesday, thereafter, to give me lessons and even brought in a chart. Her chart was about four feet by three-and-a-half feet. It looked like the subway maps of five or six cities superimposed on one another, in print the size of the telephone book. It was a busy chart. She told me that what went on in the chart is what goes on in the cells of the body. The whole effort is to keep the cells alive by providing them with oxygen. Well, when cyanide is introduced into the system, as it is frequently in Wolfe's books, it blocks the process right before the oxygen is produced. [ED. - Poisoning by all means is not a common method of murder in the Corpus, occurring as it does only 17 times or about 12.8% of the time.] Cyanide disrupts the whole business and, of course, that's the end of that. What happens to these people, then, is that they die of asphyxia, a lack of oxygen. The reason it happens so fast is the effect on the oxygen-producing process is immediate. You don't have to wait for it to be absorbed through the intestinal tract or carried in the blood to some specific place. It effects whatever cell it touches. So Faith Usher (CHAM) drank champagne with cyanide in it and died in eight minutes, which is about average. These people tend to turn blue, usually about the lips first and then to the nail beds. Cyanosis is the symptom of turning blue due to a lack of oxygen.

I found out some interesting things about cyanide. It exists in sprout kernels, and cyanide is released when they are digested. Seeds of apples, cherries, peaches, and plums release cyanide when they are in contact with some digestive enzymes. This happens only when the seed cover is broken by chewing - swallowing seeds whole is harmless.

Poisons are measured (and I'm going to try to say this without laughing) in mouse-lethal-doses (MLDs). And that is, of course, how much it takes to kill your average mouse. Two MLDs of cyanide will render a person immediately unconscious. There will follow convulsions and death within one to fifteen minutes of inhaling or ingesting the cyanide.

Arsenic is another poison that Rex Stout used on his victims. Vincent Pyle ate some with fish and was dead within an hour (pois). Again arsenic attacks on the cellular level, interfering with cellular metabolism. This same lady explained to me with her chart how arsenic attacks the structure of proteins so that they can't link together. It effects the integrity of protein structure so that things get a little runny and mushy. It is most unpleasant and death comes from circulatory collapse. When arsenic is ingested, the stomach becomes inflamed and the arsenic is absorbed into the blood stream. The blood cells break down and can't do their oxygen-carrying bit. The whole circulatory system collapses. And that, as they say, is the end of that. By the way, arsenic is also highly carcinogenic.

Nitrobenzene is another poison that Rex Stout used, at least in his books. You'll remember in RBOX, Perrin Gebert, getting into a car, spilled a saucer of nitrobenzene on himself. It absorbs very quickly, the way cyanide does. It is also called Essence of Mirbane or an imitation Oil of Bitter Almonds. It works slightly differently from cyanide but, nonetheless, polishes one off right away. It acts through an unknown intermediary to change the hemoglobin of blood into methemoglobin that cannot carry oxygen. And there you are, cyanotic again. You'll notice that the policeman investigating Gebert's death said there was a factory worker who died in an hour after spilling some nitrobenzene on himself. And the policeman at the Gebert car got a little on his hand or breathed some fumes and he was in the hospital with a blue face and purple fingernails. And now, we know why.



In cord, Bess Huddleston dies, in a particularly unpleasant way as far as I'm concerned, of tetanus. Tetanus is a disease produced by a microorganism, *Clostridium* (syn. *Bacillus*) *tetani*, which looks like little tennis rackets. The symptoms of tetanus are produced by a toxin created by the bacilli in a wound. Huddleston was cut with some glass and treated with so-called iodine that was really a fluid laced with tetanus bacilli. Three days later she developed symptoms (stiffening give you an idea how virulent it is, purified tetanus toxin contains 20 million MLDs per milligram. The average pill of aspirin has three hundred milligrams of drug in it. So, tetanus means business. What happens with tetanus is that there is an infection at the site of the wound and the bacilli begins producing toxin.

This travels through the lymphor blood system to the spinal cord and nervous system. The toxin glues itself onto the nerves and blocks the inhibiting response at the Myoneural junction, the junction of muscle fiber and nerve. At this junction there are usually some "red lights" that say to the muscle, "Don't do anything, muscle, this nerve is not really talking to you." The toxin of tetanus destroys these "red light" inhibitors, and all the impulses from the nerves are acted upon by the muscles. That is why these people get muscular spasms. I remember treating someone with tetanus as a student nurse, lo, these many years ago. We tiptoed past the room, and I mean tiptoed. We kept the blinds down and the door closed. We tried to keep the patient as quiet as possible and nobody disturbed him because the slightest stimulus of any sort triggered all those spasms. When the muscles of respiration are involved, you're in deep trouble, and people frequently die of respiratory failure. Interestingly enough, most people who have tetanus die of kidney failure. Because of the really ceaseless activity of skeletal muscles, there is a lot of protein going through the kidneys and they can't handle it. The treatment of tetanus today is different from when Archie originally wrote. Just as with strangulation victims and today's CPR which has only been around for twenty-five years, today's treatment for tetanus is to put the patients on ventilators, paralyzing them with drugs and treating the original infection, killing the tetanus bacilli so they can't produce any more toxin. We also can neutralize the poison with antitoxin causing the toxin to fall off the nerve cells and wash away. And people can survive, although the mortality rate is fifty percent.

Anthrax is another disease that Stout used in the Corpus. The Bacilli anthracia look like little rods and come in chains. They hunker in the soil as spores waiting for a victim to come along. As spores, they can exist for a long time. The infection comes by entry of these spores into injured tissue. Cattle can eat them and they pass harmlessly through unless the intestinal tract of the cows has been disturbed by some injury such as eating spiny things or thorns. People get anthrax if a wound is exposed to the anthrax spores. In the blood plasma of animals dying of anthrax, for a brief time there is something called a lethal factor. It is not very well known what this is, but that's what Monte McMillan said (CAES) when he committed suicide by giving himself an injection of 5 cc's of the blood from his diseased bull. The lethal factor wiped him out in twenty minutes.

What snake bites don't do to you is not worth talking about. Snake venoms, in research I did, show up as so awful it's no wonder the fellow died there right on the golf course (FERD). Fer-de-Lance is actually the name for a variety of Central and South American pit vipers that are all related to one another. There is not one in particular that is called Fer-de-Lance. There are three ways snake venoms get at you. They can be neuro-toxic, that is, there are some that attack the nervous system. They also can be hemo-toxic in two ways: the first is to attack the blood protein, destroying its integrity; the second is to cause blood clotting in what is called disseminated intravascular coagulation. Now it used to be thought that snake venom caused people to bleed to death by anticoagulating them. What actually happens is that the venom causes clotting to such a degree that all the clotting mechanism is used up at the injury site, and the rest of the blood becomes unclottable. Thus people will sometimes bleed to death within their tissues.

There is another chemical compound mentioned in the Wolfe books. It causes profound biochemical and morphological changes of the liver, brain, gut, heart, endocrine system, bone, blood, and muscles. It causes inadequate nutrition and sleep disturbances. It effects insulin secretion. It causes gout, pancreatitis, and cardia myopathy. It's not coffee, it's alcohol. And, of course, our beloved detective exhibits none of these symptoms, although he imbibes alcohol to access. I spoke to the substance abuse chairman at our hospital and asked, "What do you think about five quarts of beer a day for forty-one years?" And he said, "It's not compatible with life." But, of course, that is one death that we are glad didn't take place.

[ED. - This little tidbit was written by our Ms. Mikulewicz for the Nero Wolfe Assembly in 1986. This lost tape was recovered and delivered to your editor by the Reverend Fred Gotwald. Emily is, for those of you who don't know her, a Head Nurse at the Englewood Hospital in New Jersey.]

@The Wolfe Pack

