

March 2, 2004

Deaths Go Unexamined and the Living Pay the Price

By ANAHAD O'CONNOR

Dr. Gregory Davis hunched over an autopsy table last Thursday morning and cut into the lifeless body of a 52-year-old man.

Days earlier, the man, who had no real health problems other than a smoking habit, had been found dead in his apartment, the victim of a heart attack, a coroner determined.

But Dr. Davis, a forensic pathologist at the University of Kentucky, opened him up and found something startling. The actual cause of death was bacterial meningitis, a severe infection that could have spread to others before the man died.

Dr. Davis left the autopsy room to call the coroner and local health department, urging them to alert the man's family.

"We had to ensure that the family and other contacts got treated with antibiotics," he said. "It was a major finding."

Autopsies were once routine, performed in more than half of hospital deaths and, in some parts of the country, in a majority of deaths that occurred elsewhere. But over the last few decades, the number of such procedures in the United States and several other countries has sharply dropped.

Hospitals, afraid of being sued over mistaken diagnoses, increasingly forgo autopsies, experts say. The advent of sophisticated imaging techniques like C.T. scans and M.R.I.'s have created an illusion among doctors that the procedure is unnecessary. Grieving relatives, too, are often unwilling to shoulder the cost or wait for autopsies to be completed.

The decline, researchers say, may be gradually eroding the quality of care. A growing number of missed or mistaken diagnoses are going unchecked, depriving doctors of a learning tool. And studies, including one published last week, find that autopsies uncover missed or incorrect diagnoses in up to 25 percent of hospital deaths.

Medical examiners once relied on autopsies to pinpoint diagnostic mistakes, so doctors could know what pitfalls to avoid in the future.

Autopsies unmasked diseases that once baffled scientists, allowing researchers, for example, to link cigarette smoking to lung cancer and providing the first glimpses of AIDS, tuberculosis and heart disease. In some cases, autopsies have also detected hereditary illnesses, providing essential information for surviving relatives.

But autopsies are no longer a fixture.

"The culture has come to accept the fact that they aren't happening any more," said Dr. George D. Lundberg, a pathologist who is editor in chief of Medscape General Medicine, an online journal. "Large numbers of medical students go through school without ever seeing one. It's a self-fulfilling prophecy. It feeds on itself."

In the mid-1940's, about half of Americans who died were autopsied. In 1984, the rate was about 13 percent; by 1994 it had dropped to 9.4 percent. A year later, the National Center for Health Statistics stopped collecting national autopsy statistics altogether, but most experts agree that the rate is now probably less than 5 percent.

Many newer hospitals, Dr. Davis said, no longer have autopsy rooms or the stainless-steel tables for the procedure.

As the number of autopsies has dropped, the percentage of accurate diagnoses also appears to have slipped. A study in 2001 of a hospital intensive care unit in Cleveland found a 20 percent rate of incorrect diagnoses. In more than 40 percent of those cases, the researchers said, the patients would have received different treatments if the correct diagnoses had been made.

Another study, published in 1998, examined autopsy records at a hospital in New Orleans, finding that 44 percent of cancer cases were undetected or misdiagnosed. In about half the patients, the cancer had spread and, in many cases, was probably the cause of death, the researchers found.

For such patients, the information that autopsies yield is obviously too late. But it can help prevent the illness or premature deaths of others.

"It's really an issue of quality control," said Dr. Alejandro C. Arroliga, head of the section of critical care medicine at the Cleveland Clinic Foundation and an author of the 2001 study.

"It's not realistic to expect that doctors will always be right," Dr. Arroliga said, "especially when a lot of patients come in with several coexisting medical conditions. But autopsies tell you where you're having problems. They are educational tools."

The discrepancy between diagnosis and cause of death, Dr. Arroliga and other researchers found, is not always a result of negligence. In many cases, particularly in intensive care units, one disorder may go undetected because it is obscured by another.

In a study published last week, French researchers autopsied 53 percent of 315 patients who had died in an I.C.U. in Paris, and found more than 25 percent of the diagnoses questionable. The researchers discovered 171 missed illnesses, including cancer and infections, and 33 incorrect diagnoses.

A large number of the patients in the study had compromised immune systems and were taking a number of drugs for different infections, making the diagnoses hard, said Dr. Alain Combes, an internist at the hospital and the study's lead author.

"We think it's important to continue doing autopsies on I.C.U. patients, because they're sicker, have more pathologies and often die from unclear causes," said Dr. Combes, whose study appeared in the Feb. 23 issue of *The Archives of Internal Medicine*. "It's a difficult science, and you always learn from your mistakes. That is particularly true in the I.C.U., where deaths occur very frequently and very rapidly."

Financial constraints have clearly played a role in putting autopsies on the endangered procedures list. A typical autopsy can last several hours and cost \$2,000 to \$3,000 or more. Arrogance has also contributed: with C.T. scans and other imaging techniques, some doctors assume that they will be able to see whatever is wrong, even though studies show that such diagnostic tools do occasionally err.

Another factor, some experts said, is the risk of malpractice suits if a mistake or a missed diagnosis is exposed. In most wrongful-death cases against a hospital or physician, an autopsy is critical to establishing negligence, said Wayne Grant, a lawyer in Atlanta who has won many malpractice suits over 25 years.

"Of the potential death cases that we have turned down, well over 50 percent are cases in which there has not been an autopsy," Mr. Grant said. "When a patient dies and there's no autopsy, the doctor can bury his mistakes along with the patient."

In some cases, Dr. Davis said, doctors actually do themselves a disservice when no autopsy is performed. In those cases, they are burying the proof of their innocence. In one, he recalled, a family contended that a doctor had sewn a relative's transplanted liver in backward, a medical impossibility. The patient was exhumed, autopsied and was eventually shown to have died from other complications.

"It's a nightmare scenario, one that could have been avoided if the autopsy was done in the first place," Dr. Davis said.

Some hospitals that once performed autopsies on 60 percent of patients or more have now stopped entirely. Many that still do autopsies, often only at the behest of survivors, no longer cover the costs. In much of the country, it is up to the coroner or medical examiner to order an autopsy when a person dies outside a hospital, but state laws vary.

In the past, the Joint Commission on Accreditation of Healthcare Organizations required that hospitals perform autopsies in at least 20 percent of all deaths. But the commission dropped the requirement in 1970, when it suspected that hospitals were performing the procedure at random simply to meet the quota.

Still, some experts argue that because autopsies are expensive, do not always turn up new findings and can take away time that doctors might better spend obtaining biopsy results for living patients, it does not make sense to require them.

"On a relative value base, they have fallen down the scale," said Dr. Dennis O'Leary, president of the accreditation commission. "And the fact that you do an autopsy and find something there that you didn't see before the patient died may not necessarily be significant."

The commission's change in policy, others say, has speeded the decline of autopsies.

Dr. Lundberg said that restoring the old policy could result in an immediate increase in the autopsy rate and that even randomly performed autopsies could be useful.

"It's the random ones that uncover the surprises," he said. "That is what makes them epidemiologically valid."

Autopsies may be more acceptable to the public now than in the past. Traditionally, doctors have been reluctant to bring up the topic with grieving family members. But television programs like the "X-Files," "C.S.I.: Crime Scene Investigation" and "Crossing Jordan" have made autopsies more familiar, Dr. Davis said, though such fictional portrayals often create unrealistic expectations.

"Sometimes people will ask things like, 'What was he thinking when he died?' " Dr. Davis said. "They're confusing autopsies with forensic investigations. I call it the 'X-Files' phenomena."