



Robert Phillips—Medical World News

New York medical examiner Helpern: From autopsy table to test tube

Where Laughter Flees

For all the histrionics and procedural hairsplitting by prosecution and defense last week, the verdict against Dr. Carl Coppolino (page 42) was based largely on a purely scientific question: did Carmela Coppolino's body contain traces of a chemical indicating that she had been poisoned? To get the answer that would serve his case best, each attorney relied on an outstanding member of the little-known specialty of forensic pathology. For the prosecution, Dr. Milton Helpern, New York City's chief medical examiner, insisted that Mrs. Coppolino's brain and liver contained a by-product of succinylcholine, a drug that can paralyze the respiratory system and cause death. As a defense witness, Boston medical examiner Dr. Richard Ford argued that autopsy evidence failed to show that Coppolino's wife had died of asphyxiation.

For the band of painstaking scientists who make up the nation's corps of forensic pathologists, appearances at such nationally publicized trials as Dr. Coppolino's represent rare excursions into the limelight. For the most part, the forensic pathologist practices his specialty discreetly hidden from the public. His daily rounds take him from autopsy table to test tube and microscope in search of the causes of death—both natural and unnatural. "Let Conversation Cease, Let Laughter Flee," reads the Latin inscription in the lobby of the New York Chief Medical Examiners Building. "This is the Place Where Death Delights to Help the Living." A detective as well as a doctor, the forensic pathologist must be as alert to the twists in the criminal mind as he is familiar with the convolutions in the cerebral cortex.

In New York, Los Angeles and several other cities, the medical examiner is a qualified pathologist, though in smaller

communities in most states, deaths are usually investigated by elected coroners, many of whom are not even M.D.'s. The leading forensic physicians belong to the American Academy of Forensic Sciences, whose membership includes 283 doctors (a dozen of whom also hold law degrees), 73 lawyers and an assortment of specialists in such fields as criminology and toxicology. Generally speaking, medical examiners are required to look into all deaths in which a physician is not in attendance, those involving violence and any that arouse suspicion.

Gun or Knife: Few of the deaths that fall in the medical examiner's province involve foul play, however. Of the nearly 32,000 deaths investigated annually by Helpern's office in New York, more than half are declared due to natural causes at the scene. Of the remainder, 6,500 are violent accidental deaths. There are also 1,000 to 1,200 suicides, about half of them caused by barbiturates and other drugs, 350 deaths from narcotic addiction, the highest such toll in the U.S., and 750 homicides. In New York, as in most cities, the homicide weapon is usually a gun or a knife. Beating and strangulation account for most of the remaining slayings and only five poisonings have occurred in the last three years.

Forensic pathologists solve many homicides through skillful application of Locard's Exchange Principle: "When any two objects come into contact there is a transfer of material from each object to the other." In one case handled by Dr. Samuel R. Gerber, Cuyahoga County (Cleveland) medical examiner, mattress feathers on a suspect's trousers linked him to the rape-murder of a child.

Many pathologists believe in visiting the scene of violent death to pick up clues that would be missed if they waited for the body to arrive at the morgue. In Los Angeles not long ago, the death of a

man who collapsed suddenly while repairing a TV antenna on the roof of his apartment building might have been blamed on long-standing heart disease if a pathologist from the county coroner's office hadn't arrived and noted two tiny holes in the back of the victim's head. Snooping around the building, he found several sparrows that had been killed with .22 caliber air-gun pellets. Using the shape of the wounds in the victim's head and the position in which he was lying, the examiner was able to calculate trajectories that led him to a neighbor who admitted plinking at birds from his window. The heart-disease death thereupon became a case of involuntary manslaughter.

Exoneration: A skillful autopsy, however, can exonerate the falsely accused as well as help pin down the case against a suspect. In an Oklahoma case, the apparent victim of a barroom fight was found to have a tiny aneurysm (a defect in the wall of an artery) in his brain. Bleeding from the aneurysm had made the man combative and he had picked a fight with the suspect. The hemorrhage, not the suspect's fists, caused his death.

Although few in number, poisonings constitute some of the toughest cases for the forensic investigator to crack. Some 5,000 substances can kill in the proper dose, yet many of them—like succinylcholine—are difficult, if not impossible to detect in the body. One problem, notes Cleveland's Gerber, is that the only way a toxicologist can tell whether certain drugs or deadly chemicals have been ingested is to search for the breakdown products it forms during metabolism. "But with many of the newer drugs," says the 69-year-old pathologist-lawyer, "we don't know what to look for."

Overdose: Currently, Gerber's office is trying to solve the problem with an annual \$25,000 grant from the National Institutes of Health. The Ohio investigators are analyzing blood and urine from hospital patients to learn what end products of metabolism to expect from various drugs and in what concentrations. The base lines for a "therapeutic" dose can then be used for comparison with samples from suspicious cases to see whether death was caused by an overdose.

Such knowledge paid off several years ago, Gerber recalls, in the case of the "sleeping beauties"—young girls hospitalized for mysterious lapses of consciousness. Gerber became suspicious when he heard that the children came to during occasions when their mother had not been able to visit them for prolonged periods. His tests showed high levels of barbiturates in their bodies during their sleeping spells. During one of the mother's visits, a photographer concealed in a hospital closet caught her giving the children sedatives. "For some time," says Gerber, "she'd been giving them barbiturates just to keep them quiet."

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magazine. "Hinckle and the people around him are journalists," says one director. "Keating is a lawyer, a businessman and sort of a dilettante. He often did not know what made a story."

To bring in new money, Keating gracefully agreed to yield control of the magazine and become simply the major shareholder with 42 per cent of the stock. In the past eighteen months twelve investors put up \$1.5 million for the magazine and gave Hinckle control. Ramparts' circulation has jumped to just under 230,000 and its losses have been cut in half—to under \$30,000 a month.

Keating, meanwhile, stayed in the background, keeping his titles of president and publisher. But two weeks ago three of the magazine's top business aides complained to him that Hinckle and his editors were squandering funds. "They were spending money," says Keating, "like it was going out of style."

Confidence: Without speaking to Hinckle, Keating complained to Richard Russell, chairman of the magazine's finance committee. When Hinckle discovered what had happened he called a meeting of the board of directors' executive committee, which thereupon fired the three business aides. Then the board of directors met and called on Keating to back up his charges. By a vote of 13 to 1—with only Keating voting in the minority—the board gave Hinckle a vote of confidence and fired Keating.

The editorial course of the magazine itself probably won't be much affected by Keating's ouster. In the next few months Ramparts plans to publish a lengthy piece by a former FBI man who claims that New Orleans District Attorney Jim Garrison is on the right track in his investigation of the Kennedy assassination. And if it can last out the next nine months, Ramparts hopes to come up with something still more dramatic—it hopes to start breaking even.



Newsweek—James D. Wilson

Hinckle: Very upset?

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