

PROLOGUE

The insulin molecules invaded like a miniature marauding army. Rapidly infiltrating the veins, they rushed headlong into the heart, to be pumped out through the arteries. Within seconds the invasion spread throughout the body, latching on to receptors on the cell membranes and causing the cellular gates for glucose to open. Instantly glucose poured into all the cells of the body, resulting in a precipitous fall of the glucose level in the bloodstream. The first cells to be adversely affected by this were the nerve cells, which cannot store glucose and need a highly regulated, constant supply of the sugar to function. As minutes passed and the insulin onslaught continued, the neurons, particularly those of the brain, rapidly became starved of their lifeblood glucose and their function began to falter. Soon they began either to send errant messages or to send none at all. Then they began to die. . . .

WESTWOOD, LOS ANGELES, CALIFORNIA

MONDAY, APRIL 7, 2014, 2:35 A.M.

Kasey Lynch lurched awake. The nightmare had been a bad one, filled with progressing anxiety and terror. She was disoriented, wondering where she was. Then she remembered; she was sleeping in the apartment of her fiancé, Dr. George Wilson. She'd been staying at George's place two or three times a week for the past month, whenever he wasn't on call as a third-year radiology resident at the L.A. University Medical Center. He was sleeping next to her now. She could hear his soft, rhythmic, slumber-infused breathing.

Kasey was a graduate student specializing in child psychology at L.A. University, and for the past year she'd been volunteering in the pediatric department at the medical center. It was there that she met George. When she brought her pediatric patients into the radiology department for imaging studies, she immediately took note of George's easy confidence and his way with patients, particularly children. The handsome face and crooked smile didn't hurt, either. He was warm and personable, qualities she liked to think were part of her own personality. Just a mere four weeks before, they'd become engaged, although they still hadn't set a specific date for the wedding. The proposal was a pleasant surprise, perhaps because of her careful nature in all things "permanent," due to the reality of her health issues. But both she and George had been smitten, and they joked that the rapidity of their relationship was because they'd been unknowingly searching for each other for years.

But Kasey was not thinking any of this at 2:35 in the morning. Instead she knew instantly upon waking that something was wrong, very wrong! This was far worse than just a bad nightmare, especially because she was sopping wet with sweat. Having had type 1 diabetes since she was a child, she knew all too well what it was: hypoglycemia. Her blood sugar was low. She had experienced it on a number of occasions in the past and knew she needed sugar, and needed it fast.

Kasey started to get up, but the room began to spin. Her head flopped back against the pillow as a brief overwhelming dizziness engulfed her and her heart pounded rapidly. Her hand groped for her cell phone. She was always careful to have it within reach and had left it charging on the bedside table. Her thought was that she would speak with her new doctor for reassurance while she ran to the kitchen to get some orange juice. The new physician was incredible, available even at this hour.

As her dizziness lessened she sensed this episode was worse than usual, probably because she had been asleep, giving the problem a chance to progress much further than it would have had she been awake and able to recognize the earliest symptoms. She always kept some fruit juice on hand for just this kind of an emergency, but she had to get it. She tried again to get up, but she couldn't. The symptoms were progressing with horrifying rapidity, draining the strength from her body. Within seconds she was helpless. She couldn't even hold on to her phone. It slipped from her fingers and landed on the carpet with a dull thud.

Kasey quickly realized she needed help and tried to reach over to wake George, but her right arm seemed to weigh a ton. She couldn't even lift it off the bed, much less across her body. George was lying so close, but facing away from her, completely

unaware of her swiftly deepening crisis. Using all her energy, she tried again, this time with her left arm; all she could manage was to extend her fingers slightly. She tried to call his name, but no sound came out. Then the dizziness came back with a vengeance, even worse than it had been moments earlier. Her heart continued to pound as she struggled to suck air into her mouth. It was getting harder and harder to breathe; she was being progressively paralyzed and suffocating as a consequence.

At that point the room started to spin faster, and there was ringing in her ears. The sound kept growing louder as darkness descended around her like a smothering blanket. She couldn't move, she couldn't breathe, she couldn't think . . .

George's smartphone alarm went off a little after 6:00 A.M., rousing him from a peaceful sleep. He quickly turned off the alarm and slipped out of bed intent on not disturbing Kasey. It was their routine. He wanted her to sleep to the last possible moment, since she frequently had trouble falling asleep. He padded over to the bathroom, taking his phone with him. As with most people nowadays, the device never left his side. Enconced in the tiny room, he showered and shaved in just under his usual ten minutes. He was proud of his self-discipline; it had served him well throughout his seven years as a medical student and resident—a grueling endurance race in which “survival of the fittest” was much more than just an abstract turn of phrase.

Six twenty A.M.! Time to wake Kasey. He opened the bathroom door while briskly drying his hair and noticed that her eyes were open, staring up at the ceiling. That was unusual. Kasey was a heavy sleeper; it often required several attempts to rouse her.

“Been awake long?” George called, still drying his hair with his bath towel.

No response.

George shrugged and went back into the bathroom to brush his teeth, leaving the door ajar. He wasn’t surprised that Kasey was in a kind of trance; he’d seen it before. When she was really concentrating on something, she had a tendency to zone out. Over the past couple of weeks she’d been consumed in a struggle to come up with a topic for her PhD thesis. So far she hadn’t been successful. They’d just had a long talk about it last night before George had nodded off to sleep.

He walked back to the bedroom. Kasey hadn’t moved a muscle. Odd. He approached the bed, still brushing his teeth, trying to keep from drooling on himself.

“Kasey?” He half gurgled. “Still worried about the thesis?”

Again, there was no response. She was staring upward, unblinking, with what looked like dilated pupils.

A shiver of fear shot down George’s spine. Something was wrong; something was terribly wrong! She was much too still. Panicked, George yanked his toothbrush out of his mouth and bent over the bed. Was she having a seizure?

“Kasey! Can you hear me? Wake up!” He grabbed her shoulders and gave her a firm shake, sensing an abnormal stiffness in her body. That was when he realized she wasn’t breathing!

“Kasey, honey! Please, please, God . . .” George leaped onto the bed, searching for a pulse in Kasey’s neck. The coldness of her skin unnerved him. He fought back a growing dread as he tore back the covers to start CPR. On the very first attempt, he sensed an unusual resistance and noticed her eyes were not just open, they were frozen that way.

“My God . . . Kasey!” George shrunk back in horror. She was going into rigor mortis. She was dead! His fiancée—his

world—had died during the night and he, a doctor no less, had slept right through it!

George collapsed onto the floor, his back against the wall, and wept. It was twenty minutes before he could manage to call 911.

**BOOK
ONE**

1

NEARLY THREE MONTHS LATER
L.A. UNIVERSITY MEDICAL CENTER
WESTWOOD, LOS ANGELES, CALIFORNIA
MONDAY, JUNE 30, 2014, 8:35 A.M.

It was George's last day as a third-year radiology resident at L.A. University Medical Center. Tomorrow would mark the beginning of his fourth and final year in the hospital's residency program, and then he could start making some real money. After all his years of medical training and two hundred thousand plus dollars' worth of debt, the light at the end of the tunnel was finally visible. His focus on moneymaking was his way of surviving the devastating loss of the woman he loved, the only woman he had really loved. Although he knew it wasn't exactly the healthiest way to begin the healing, it was all he could come up with at the moment. Getting paid, and paid well, would at least be a vindication that all his years of education had been well spent, and he could begin to pay back the money he owed. At least his professional life was on track.

Over the past three grueling months, George had pretended

an amenable camaraderie with his coworkers, but the truth was that he had become a hermit. Anyone who tried to dig under the genial surface scraped up against a strongbox in which he kept his feelings. It was what held his demons at bay, or so he had thought. Actually he knew that he was going back on a sacred promise he had made to Kasey. When he had asked her to marry him, she had demurred, saying that it was unfair for him to tie himself down with someone with substantial medical issues. To George's consternation, she had been extremely serious and had agreed to marry him only when he had finally said that if something were to happen to her, he would not shut himself off from his friends and would ultimately find another relationship. Kasey had even made him give her a written statement to that effect.

George sighed. He was exhausted. The previous night he had not been able to fall asleep until almost morning, overcome with guilt at having broken his promise and for the greater guilt at having slept through her death. He would never know if she had suffered or if she had died in her sleep. That was a question that would haunt him for the rest of his life. It kept him from sleeping well since her death, and his insomnia was getting worse.

He looked at his watch. It was 8:35 in the morning. George was in the MRI unit, supervising second-year resident Claudine Boucher. The radiology department in general and the MRI unit in particular were large revenue generators, and their reward from the administration was an excellent location on the center's ground floor immediately adjacent to the emergency department. Claudine had been on her current rotation under George's tutelage for the past month, and at this point George's presence was superfluous.

George was sitting off to the side, glancing through a radiol-

ogy journal. Every so often he'd look up at the monitor as the computer generated image slices. He was too far away to see any detail, but all seemed in order. He continued sipping on a cup of his favorite Costa Rican coffee. He loved coffee. The taste. The smell. Its stimulative and euphoric effect. But he was highly susceptible to caffeine; his body didn't seem to metabolize it like those of other people. One cup in the morning was his limit. Otherwise, he would be bouncing off the walls into the early-morning hours with a crash-down throbbing headache rounding out the ride. In his present state of mind, indulging himself with even one cup was life on the edge. But George didn't mind since he felt as if he had already fallen off.

A large thermo-paned window let the doctors see into the adjacent room, where the enormous MRI machine did its work. Only the legs of the current patient were visible as they protruded from the multimillion-dollar testament to advanced technology. A highly efficient radiology technician, Susan Fournier, was monitoring the progress of the scan. All was going smoothly. Claudine was seated next to Susan, looking at the horizontal slices of the liver as they appeared. Except for the muffled clunks of the machine coming through the insulated wall, the room was quiet. Inside the MRI room itself, the noise level was horrendous, requiring the patient to wear earplugs.

The patient, Greg Tarkington, was a highly successful forty-eight-year-old hedge fund manager. All three of the medical professionals in the room were aware of this patient's history of pancreatic cancer. They were also well acquainted with the details of the extensive surgeries and chemotherapy he had undergone. The surgeries had made the man diabetic, while the side effects of the chemo had caused his kidneys to fail temporarily. At present, he was relying on dialysis to stay alive. Tark-

ington's referring physician, an oncologist, was particularly concerned with making sure the liver was normal.

"How's it look?" George asked, breaking the silence.

"Good to me," Susan responded softly. Even though there was no chance the patient could hear, the doctors and technicians tended to whisper when a procedure was under way.

"To me, too," Claudine said, turning to George. "Take a peek?"

George heaved himself to his feet and stepped closer to the monitor. He took his time, staring in silence as the images emerged. Susan was rerunning the film starting at the base of the liver and moving cephalically, or toward the head.

"Stop there," George suddenly ordered. "Freeze it."

The technician paused the frame as instructed.

"Let me see the previous slice," George said, leaning in for a better look. Most people, George included when he had first started, thought radiology was a hard science, meaning the sought-after lesion was either there or not there, but over the previous three years George had learned differently. There was a lot of room for interpretation, especially with small irregularities.

George sensed something abnormal in the image, just to the right of center. He rubbed his eyes and looked again.

"Give me the slice one centimeter lower!" He studied the requested image and suddenly he was sure. There were two small irregularities present. "Go back to the original image you had up, the one that's still being formed."

"Coming up," the technician responded.

The irregularities were in this image, too. George took a laser pointer from the pocket of his white coat and lit up the irregularities.

"That doesn't look good," he said.

Claudine and the technician studied the frame. Out of the various shades of gray they could now see the two lesions.

“My goodness,” Claudine said. “You are right.”

“It’s pretty damn subtle,” Susan said.

George stepped over to a hospital computer monitor and called up Tarkington’s previous MRI, quickly locating slices from the same location in the liver. They had been normal. The lesions were new. George paused a moment to think about what that could mean. On one level, their discovery meant George was doing his job well. But to the anxious man in the adjacent room with his head stuffed into a 3.0-tesla-strength magnet—a magnetic field 60,000 times the strength of the Earth’s—it meant something quite different. The incongruity of such a situation never failed to discomfit George. It also brought up his raw emotions about Kasey’s sudden death. The image of her face in its mask of death—its frozen pallor, the staring eyes, the dilated pupils—confronted him.

“You okay?” Claudine asked, eyeing him.

“Yeah. Fine. Thanks.”

But he wasn’t. Burying a problem only made it fester. The clarity with which Kasey’s death face appeared in his mind’s eye scared him. In the wake of her death he had discovered she’d just been diagnosed with very aggressive stage-four, grade-three ovarian cancer found by a CT scan she’d had at Santa Monica University Hospital. The test had been performed on the Friday before her death, which was early on a Monday morning, so she hadn’t even been told yet. Since the hospital was a sister hospital to George’s, he had used his resident’s access code to view the study. It had been a violation of HIPAA regulations, but at the time he couldn’t help himself. He was lucky he hadn’t been prosecuted, due to the circumstances, yet he had been worried.

“Let’s finish the study,” George said, shaking himself free of his disturbing thoughts.

“There’s only fourteen minutes to go,” Susan said.

Returning to his chair, George forced himself to go back to flipping through the radiology journal, trying not to think. For a time no one talked. No other abnormalities were found besides the two small lesions, which were undoubtedly tumors, but the implications of that finding hung like a miasma over the control room.

“I’m afraid,” Claudine said, breaking the silence and giving voice to what they were all thinking, “that, with the patient’s history, the lesions are most likely metastases of the patient’s original pancreatic tumor.”

George nodded, and said churlishly, mostly to Claudine, “Okay, now, quick reminder: We do not say or indicate in any manner anything to the patient, beyond mentioning that the test went well, which it did. The material will be read by the senior radiology attending, and a report will be sent to the patient’s oncologist and primary-care doctor. Any ‘informing’ will be done by them. Understood?”

Claudine nodded. She certainly understood, but the admonishment and its tone came across harsher than George had intended and created an uncomfortable silence. Susan looked down, busying herself by arranging her paperwork just so.

George realized how he sounded and launched into a little damage control. “I’m sorry. That was uncalled-for. You’re doing a great job, Claudine. Not just today, but in your whole month of rotation.” He meant it, too. Claudine relaxed visibly and even smiled. George sighed as the previous awkwardness dissolved. He needed to get a grip on himself.

“What’s our schedule for the rest of the day?” he asked.

Claudine consulted her iPad. “Two more MRIs. One at eleven, the other at one thirty. Then, of course, whatever comes in from emergency.”

“Any trouble with the two scheduled MRIs, you think?”

“No. Why?”

“I have to step out for two or three hours. I want to go to a conference over in Century City. Amalgamated Healthcare, the insurance giant and our hospital’s new owner, has a presentation planned for would-be investors. It’s something about a new solution they have come up with to end the shortage of primary-care physicians. Can you imagine: a health insurance company solving the primary-care shortage? What a stretch.”

“Oh, sure! An insurance company solution to the lack of primary-care physicians,” Claudine mocked skeptically. “Now, that sounds like a fantasy if I ever heard one, especially with Obamacare adding thirty million previously uninsured into a system that was already functioning poorly.”

“You sure the presentation isn’t being held down at Disneyland?” Susan said as she prepared to go into the imaging room to see to the patient, who at the moment was being slid out of the MRI machine by an attendant.

“Might as well be,” George said. Even though they were making light of the situation, it was a serious issue. “I’m really curious what they are going to say. It would take a decade, at the very least, to train enough doctors to fill the gap, provided they can talk doctors into practicing primary care, which isn’t a given. Anyway, I’d like to go hear what they have to say, if you don’t have any problem.”

“Me?” Claudine asked. She shook her head. “I don’t have a problem. Knock yourself out!”

“Are you sure?”

“Very sure.”

“Okay. Text me if you need me. I can make it back in about fifteen minutes if I’m needed.”

“No prob,” Claudine said. “Gotcha covered.”

“We’ll review them when I get back.” He paused. “You sure you’re okay with this—my leaving?”

“Yes, of course. I’ll be working with Susan again. She doesn’t need either one of us.”

Susan grinned at the compliment.

“Okay, great. Let’s all go in and talk with the patient,” George said, motioning them toward the door.

They put on game faces and entered the imaging chamber. Tarkington was sitting on the edge of the bed, smiling nervously. He was obviously eager for some positive feedback.

The doctors were all careful not to divulge the bad news, knowing that it would most likely mean more chemotherapy, despite the man’s tenuous kidney function. Claudine spoke as reassuringly as she could while George and Susan nodded.

Then, as the attendant and Susan got the patient onto his feet, George and Claudine retreated back to the safety of the control room. Talking with a patient destined to receive very bad news underlined the fragility of life. There was no way to be detached about it.

“That sucked,” Claudine said, sinking into a chair. “I hate not being forthright and honest. I didn’t think that was going to be part of being a doctor.”

“You’ll get over it,” George said with a casualness he didn’t feel.

She looked at him, stunned.

“I didn’t mean it like that. But you *will* get over it.” George didn’t know why he had just said that. He hadn’t gotten over

anything of the sort. He hedged a little. "To some degree, anyway. You have to, or you won't be able to do your job. It's not the 'not being honest' part that bothers me as much as the shitty situation itself. We just had a conversation with a very nice man in the prime of his life, with a family, who will in all likelihood soon die. That will always suck." George busied himself with the files of the upcoming cases so as to not have to look directly at Claudine. "But you have to compartmentalize your feelings so you can continue to do your job, which will help save the lives of those who *can* be helped."

She looked at him.

George sensed her gaze and felt bad. Repeated exposure to such cases had not deadened his own feelings. He looked up at her. "Look . . .," he said, searching for the right words. "It's part of why I went into radiology. So there would be a buffer between me and the patient. I figured if I could deal with the images rather than the patient, I would be better equipped to handle my job." He motioned to the adjacent room, where they had just left Tarkington. "But as you can see, the buffer has holes in it."

They both sat silent for a moment, then George moved to the door. "Well, I have to get a move on—"

"Me, too," Claudine said softly.

George looked at her quizzically: Me, too, what?

"It's why I went into radiology. And thanks . . . for the honesty."

George gave her a melancholy smile and left the room.