

## Prologue

I finished my training in internal medicine and gastroenterology in 1995. I was married, with daughters two and five, and on a student visa. I was offered a job in rural West Texas. The county hospital was unable to recruit local doctors and offered us green cards if I practiced there for three years.

After London and Houston, living in a town of five thousand and working in an underserved hospital required a lot of adjustment. There were no other specialists and the lab and X-ray facilities were rudimentary. I relied on taking a detailed history, examining patients very carefully, ordering the few tests available, and hunting for clues. I became a medical detective.

As an immigrant family, it was an adventure for all of us. We grappled with American customs, passions, and idiosyncrasies. The political correctness of big cities is absent in small towns; the American identity lies bare. We accepted the simple honesty and scrutiny of our new friends and carved out a happier life together.

These events happened over twenty years ago, and I admit my retelling may be one-sided and unfair. To protect patient privacy, characters and events have been mixed and moved around. I have rearranged facts and timelines. In my first book, *Cowboys And Indian: A Doctor's First Year In Texas*, I wrote an account of my introduction to West Texas. This book continues the narrative and covers the second year.

Many days were joyful, others heartbreaking; some bewildering and others hilarious, but *never* were they dull. That's the thrill of practicing medicine.

As an immigrant Indian family in the Bible belt, this was an extraordinary experience for all of us. My contract stipulated that I stay there three years; we ended up spending six years instead. Through my writing, I hope I convey the friendship, love, and respect that emerged on both sides over those years.

*Sandip V. Mathur,*

*M.D.*

## **Chapter 1**

### **Man On Fire**

We were in the Hotspur Hospital Emergency Room, just before midnight. There were two other medical personnel: Dr. Hauschild and the ER nurse, Simon Godwyn.

Our patient, Guillermo Bolivar Gutierrez, was a sixty-four year old mechanic who had collapsed at home after a bout of chest pain and throwing up. He had stopped breathing by the time the ambulance arrived. They started chest compressions and got an IV going, and rushed him to our hospital.

Guillermo was over six feet and weighed at least three hundred pounds. He was strapped to the gurney, naked except for a blanket draped over his groin, twin IV lines in each forearm, and heart monitor leads that kept falling off his hairy chest. He jerked his arms and legs and twisted spasmodically. He hacked and coughed repeatedly and retched loudly. He moved his head weakly from side to side but could not speak. The room reeked of diesel and vomit. The floor was littered with needle covers, bloodstained gauze, scraps of tape, EKG strips, plastic wrapping, IV cannulas, and chest electrodes. A pile of dirty towels, used to wipe the vomit, accumulated under the sink.

I stood above his head, wrenched his jaw up with one hand and crushed a plastic oxygen face mask over his nose and mouth with the other. Simon was on our patient's left side, performing chest compressions, and Dr. Hauschild darted from the monitor to the patient.

Guillermo struggled, but was unable to move air. His chest rose slightly with each effort and deflated rapidly; his attempts had

become infrequent. His sweaty face and body became turgid and went from blue to purple; his engorged veins stood out like ropes; his bloodshot eyes popped and careened wildly. He suddenly lunged towards Simon and retched again. Simon jumped. Guillermo hacked and thrashed his legs. The gurney shuddered and Dr. Hauschild held down Guillermo's feet. Simon arched over Guillermo again and resumed chest compressions, creating bright green oscillations on the monitor. We had been working for thirty minutes and we were exhausted. Dr. Hauschild examined the rhythm on the heart monitor forlornly.

"Is there *any* bloody chance?" Simon gasped. He paused chest compressions and looked at me.

I squeezed the purple Ambu bag twice and thrust oxygen into his lungs. Guillermo's chest rose and fell an inch.

"I don't know," I answered. "We don't know how long he was down at home. At least he's moving some oxygen now, that's good."

"Continue compressions?" Simon asked.

"Yes! Keep up the compressions!" I ordered.

"*I'm* in charge here, not Dr. Mathur," Dr. Hauschild snapped. "You take orders from *me!*"

"Yes, sir," Simon said.

"You two have got some kind of British connection going, I see that!" Dr. Hauschild said. "You know what? I don't care. *I'm* in charge here!"

"Then what would *you* like me to do, *sir?*" Simon asked, sarcastically.

"Continue the damn compressions!" Dr. Hauschild ordered.

Simon smirked and resumed the compressions. Guillermo's arms and head jerked with the compressions.

"*One, two, three, four, five, six, seven,*" Simon grunted.

I looked at the cardiac monitor. The monitor showed large irregular waves.

“*Eight*, nine, ten, eleven,” Simon glared at me.

“Doesn’t look too good,” I said.

“Hopeless!” Simon grunted.

I looked at the monitor and at Dr. Hauschild. He looked away.

“Twelve, thirteen, fourteen, *fifteen!*” Simon announced, and straightened up abruptly.

I squeezed the oxygen bag twice. The man’s chest rose and fell twice, but his face grew more bloated.

“We’ve been working on him for over thirty minutes, sir,” Simon protested.

“Hold compressions for ten seconds!” Dr. Hauschild ordered abruptly. “Hold it! Hold it!”

Simon paused briefly; as we watched, the heart waves became very small and irregular. The oxygen level plummeted below sixty percent.

Simon shook his head wearily and resumed compressions. Guillermo’s head bobbed and his limbs jerked limply.

“This is bonkers, Dr. Mathur!” Simon complained, and looked at me. Dr. Hauschild was furious.

“Why are you looking at him?” Dr. Hauschild grabbed Simon’s shoulder. “*I’m* running this code, *not* Dr. Mathur.”

Simon glared at him.

“You want me to still keep going?” he asked, curtly.

“Did I tell you to stop?” Dr. Hauschild asked. “Did you hear me say, stop, Simon, stop?”

Simon shrugged.

“*Don’t* stop the compressions! Keep going! Keep going!” Dr. Hauschild ordered.

“Dr. Hauschild, his oxygen level is low,” I said. “He has a history of sleep apnea and he’s a big boy. I’m having a hard time keeping his oxygen up.”

“So what should we do about it, genius?”

“I think he needs a tube in his airway.”

Dr. Hauschild hesitated.

“You *think*?” he sneered.

“I am *sure* we need an airway. I can do it,” I replied, irritated. I brandished an endotracheal tube.

Dr. Hauschild snorted and stepped back.

“No. Too risky,” he said. “Put it away.”

“His oxygen level is eighty-eight percent, even though we’re blasting him with one hundred percent oxygen. That’s not good.”

“I know that’s not good! Don’t try to teach me medicine!”

“So may I intubate?” I persisted.

“No, too risky.”

“Even more risky to leave him without an airway.”

Dr. Hauschild came up to me and grabbed my shoulder.

“*I’m* running this code! I’m telling you, no intubation!”

“Okay, no intubation,” I said. I shook him off. But I slipped the endotracheal tube under Guillermo’s neck, just in case.

Dr. Hauschild glared at the patient.

“These arm IVs are so damn useless!” he complained. He whipped the towel off and cleaned the right groin with alcohol.

“They put the IVs in the elbows!” he went on. “Which idiot did that? Every time he bends his arms they block off!”

“That’s the best I could get,” Simon admitted.

“Is that what they taught you in London? Start IVs in the worst possible places?” Dr. Hauschild taunted.

He swabbed the groin with alcohol-soaked gauze and cleaned it off with iodine. He covered the genitalia with the towel and pushed

them away from the thigh. He palpated the femoral artery with the fingertips of his left hand and, with his right, inserted a thick needle a quarter-inch vertically into the tissue a half-inch away from the artery. He pulled back on the syringe. Dark red blood welled up for an instant and stopped. He poked again and pulled back. No more blood came back.

“Try a little closer to the artery, angulate,” I suggested.

Dr. Hauschild grunted. He started again, a little closer, and inserted the needle at a forty-five degree angle. He drew back and suctioned. Nothing. He glared at me.

“You have to go closer to the artery,” I said. “Go closer and deeper. He’s a big boy!”

“Shut up! I don’t need your advice, damn it!” Dr. Hauschild shouted, and did exactly as I advised.

There was a spurt of crimson.

“I’m in!” he whooped. “Give me the damn guide wire, quickly!”

Simon nudged the set, taking care not to touch the sterile contents. Dr. Hauschild pulled out a long thin wire. His success softened him.

“I know it looks bad,” he admitted, and threaded the wire through the thick needle, “but at least we now have good IV access. Not those damn useless IVs in the elbows!”

He glared at Simon and removed the needle and slid a plastic catheter over the guide wire.

“Hold compressions!” he ordered, and swiftly stitched the catheter to the skin. He connected it to the bag of saline and checked.

“*Now* it’s flowing! Good!” he said. He covered Guillermo’s groin with Tegaderm, sterile cling-film, to seal the area.

“Good job, Doc,” Simon muttered sarcastically. “You saved him where all of us failed!”

Dr. Hauschild ignored Simon’s needling.

“What are you waiting for? Resume compressions!” he ordered.

“We can send that blood for electrolytes,” I suggested.

“I *know* what to do! I don’t need your expert advice for anything, genius!” Dr. Hauschild said. He squirted the blood into red, blue and pink-topped tubes. He hesitated.

“Um, what’s the number for your lab?” he asked, quietly.

Ted, the chief lab tech, was there in seconds. He was a tall, lean man with thick white hair, brushed neatly. He checked the tubes.

“You want me to run some arterial blood gases as well?” he asked.

I smiled. Ted was experienced.

“Oh! Yes! Yes!” Dr. Hauschild stammered. “I was *just* about to do that! Just about to get some arterial blood!”

“I’ll start running these and come back. I guess you need electrolytes and hemoglobin stat?” Ted said, smoothly.

“Yes,” Dr. Hauschild drew up a bead of heparin in a five cc syringe.

“Calcium and magnesium?” Ted asked.

Dr. Hauschild squirmed.

“Yes, yes, *yes!*”

Ted disappeared.

Dr. Hauschild stabbed the left femoral artery and slowly withdrew the needle. Nothing.

“His blood pressure is low, so it’s difficult to get the artery,” he declared.

He swabbed the groin again. He shifted and thrust the needle in at a different angle. He withdrew cautiously.

Nothing.

“Damn!” he exclaimed. He changed his angle and thrust the needle again. A jet of crimson shot up.



Guillermo suddenly drew his legs up and cried out. He knocked Dr. Hauschild to the floor. The syringe and needle burst out of his hands, sailed in an arc, and fell into the sink.

“I guess you *did* get his artery!” Simon smirked.

“Restrain him! *Restrain him!*” Dr. Hauschild cried, scrambling up.

Guillermo retched and threw up again. Thick green liquid burst out, covered his face and chest, and sprayed my hands and Simon’s shirt and neck. The stench flooded the room. We wiped Guillermo’s face and chest and suctioned food out of his mouth.

I turned angrily to Dr. Hauschild.

“I need to put in an airway!” I repeated. “We have to protect his lungs! We don’t want him sucking stomach contents into his lungs!”

Dr. Hauschild froze.

Simon wiped his arms and face. There was mutiny everywhere.

“I’m tired, sir,” Simon declared.

“I’ll take over,” I said and moved to the side. Simon moved to the head and grasped the bag.

Dr. Hauschild shuddered. He glared at Simon.

“Too weak to do compressions, eh? Okay. Bag him. One squeeze every fifteen compressions!” Dr. Hauschild reminded him, scornfully.

“You don’t have to tell me, I know,” Simon said. “They *did* teach us that in London.”

Dr. Hauschild stared at him with disgust.

“It’s been almost thirty-six minutes now,” I announced.

“Thank you!” Dr. Hauschild hissed. “You have an amazing grasp of the obvious!”

I completed another fifteen compressions and spoke.

“He may be low in potassium. Look at the EKG. The complexes are pretty small,” I said. “All that throwing up, it depletes potassium. I bet his potassium is low.”

Dr. Hauschild threw his arms up.

“Potassium! Where are the labs? We need the potassium level! Damn! Freaking useless ER!” Dr. Hauschild wailed. “Can’t even get a lousy chemistry report!”

“Call the lab and ask Ted,” Simon suggested. “Extension two-two-four.”

“*You* call them,” Dr. Hauschild ordered, and took over the oxygen bag from Simon. I continued compressions.

“Why do I have to push so hard with the bag?” Dr. Hauschild complained. “There’s too much resistance!”

“That’s what I said,” I countered. “I told you there was a lot of airway resistance and that I should intubate.”

“I didn’t know it was *this* much resistance! This is too much! I’m having to really work to get oxygen into him!”

“So should I intubate?” I asked.

Dr. Hauschild hesitated.

“You think you can get it? He’s a big man.”

“I think so. If you or Simon help me, I can do it.”

I grabbed the intubation cart. Dr. Hauschild squeezed the bag four times to give Guillermo a boost of oxygen.

Simon looked up from the phone.

“Potassium is three-point-one, sir,” he announced. “Normal is three-point-five to five-point-two.”

“Nah, it’s okay,” Dr. Hauschild said.

I looked at the EKG recordings on the monitor.

“Dr. Hauschild, I still think the EKG complexes are too small; that happens when the blood potassium is too low.”

“No, I don’t think so, genius,” Dr. Hauschild countered. “He’s just fat. He has a lot of padding. That’s why the complexes are small.”

“Look how abnormal the complexes are and how slow the heart rate is,” I pointed out.

“Doesn’t prove anything!”

“He’s been vomiting and he’s been on Lasix, lots of Lasix, and that pulls potassium out of the body, and then he recently took Zaroxolin,” I said.

“So what? His potassium is low but not *very* low.”

“You struggled so much to get his blood!” I said.

“I got the central line in his femoral!” Dr. Hauschild said proudly.

“Yes, but you had to try repeatedly, and that hemolyzes and damages the red cells, they leak potassium, and that *raises* the blood potassium level. The normal potassium is three-point-five in our lab so three-point-one is low and it’s really probably *even* lower, given that there’s hemolysis,” I said, between compressions.

“No hemolysis! Forget the potassium! Just intubate him, genius!”

Dr. Hauschild took over compressions. Simon stood back. I squeezed the bag repeatedly, flooding the lungs with plenty of oxygen. He would be without any oxygen until I got a tube into his airway.

*If* I got a tube into his airway.

I strapped on a facemask. I slid my thumb inside his mouth and pulled up on his chin. I forced his mouth wide open. He moved from side to side, and suddenly coughed. A spray of grey sticky sputum coated my mask.

“Suction! Give me suction!” I demanded. I wiped my mask clean on the side of the bed.

Dr. Hauschild swung around and grabbed the suction catheter.

“I knew you couldn’t do it!” he said, victoriously. “Okay, you can give up!”

I suctioned the oral cavity. The back of Guillermo’s mouth was obscured by two enormous tonsils and his fleshy soft palate flopped over them like a shroud. I couldn’t see the larynx.

I threw off the face mask. No better.

“You won’t be able to do it!” Dr. Hauschild predicted, happily.

“I can’t see the airway!” I admitted.

“I knew it! I told you it wouldn’t work!” Dr. Hauschild trilled.

“I’m going to try with the tongue blade. Give me a medium Mackintosh!”

Simon snatched a Mackintosh tongue blade and snapped it onto a handle. I grabbed it without looking away.

“Suction him!” I ordered.

I slipped in the tongue blade and hooked it around the back of the tongue and pulled up. I got a brief glimpse of a tube with white tissue.

“I think I see the cords!”

“You *think*?” Dr. Hauschild scoffed.

I tugged harder.

“Yes! I see them! Give me an eight ET tube!”

Simon squirted lubricating jelly on an endotracheal tube and slammed a metal stiffener into it. I grabbed it.

I saw the larynx bob in and out of view.

“Hold the compressions!” I shouted.

I pulled harder on the jaw and saw the larynx again. I thrust the plastic tube in like a spear.

There was an awful moment of silence.

Then Guillermo’s chest deflated two inches. The plastic tube steamed over with the moisture of the released air.

“I’m in!” I whooped.

I inflated the balloon that secured the tube and connected it to the oxygen bag. I squeezed mightily, not daring to breathe.

Guillermo’s chest rose and sank. Water vapor streaked the tubing.

“Yes! I’m in! Listen for lung sounds!”

Dr. Hauschild listened to both sides of the chest, then nodded reluctantly.

“You’re in,” he said drily. “Wonderful.”

A plump, middle-aged woman burst into the room, clutching a baby and dragging a young girl, probably ten. They were panic-stricken.

“*Es mi esposo!* My husband!” she cried.

Dr. Hauschild quickly placed an arm around her shoulder and wheeled her around. The ten-year-old stared wide-eyed at her father.

“We are doing everything we can,” Dr. Hauschild said softly. “I want you to wait outside.”

“No, I want to stay here, with my husband,” she wailed. She struggled to get free. Her daughter began to hiccup.

Dr. Hauschild did not relent. He grasped the daughter’s shoulder and pushed them both to the door.

“We are doing *everything* possible, we are doing *everything*. Just wait outside here, and let us do our job,” he said firmly.

“Is he going to *die?*” she asked, her pitch rising. “Is he going to *die?*”

“We are doing everything,” Dr. Hauschild repeated, and held up his hands. His wife’s face cracked in horror. The daughter started shaking.

“O Dio mio, he *is* going to die!” she wailed. “Dio mio, dio mio!”

“No, no, he is *not* going to die! Just stay out here and wait!”

Dr. Hauschild put both arms around her and guided her through the door.

“You too!” he said to the ten year old. She swayed and obeyed.

“But I want to be with my husband!” the wife protested.

“Let us do our job, ma’am,” Dr. Hauschild insisted. “Wait here, I will come back to you as soon as I can.”

She lunged back past Dr. Hauschild and grasped her husband's ankle.

"I want to stay!" she repeated. "Let me stay!"

Dr. Hauschild peeled her hand away.

"No!" he shouted. "No! Now go!"

"Let me stay!"

"No! Did you not hear me? I said no!"

He pushed them into the corridor and slammed the door hard. It hit the frame, shuddered, and swung open again, revealing the astonished wife and daughter.

Dr. Hauschild closed the door again with cautious majesty and jammed a stool against it.

"Does *nothing* work in this useless ER?" he spat, "not even the *doors* close?"

The door creaked a little. He ignored it.

"How many minutes has it been?" he asked.

"Almost forty-eight minutes," Simon replied.

"I still think we need to give him potassium," I repeated.

"You have said that many times, Dr. Mathur, and I have said no. I know you trained in some very fancy hospitals in London and Houston. But *I'm* in charge here. The blood potassium level is good enough!"

"So what should we do?" I asked, irritated.

"Change the chest leads! He's a big hairy man and the hair and fat is why he has small waves!" Dr. Hauschild said.

"Should I replace the leads or reposition? Or do *anything* you recommend?" Simon asked, his voice dripping with bitterness.

Dr. Hauschild turned red.

"Just fix the leads!" he screamed. "Fix the damn leads!"

Simon replaced the leads and we scanned the monitor again. Small, rapid waves.

“Blood pressure?” Dr Hauschild asked.

“Fifty systolic,” I answered.

“Not good enough!”

“How about trying some potassium?” I asked.

“No! It’s the leads!”

“Should I shave his chest?” Simon asked, “Better contact for the leads, what?”

“Waste of time! He needs to be shocked. I’m going to shock him,” Dr. Hauschild announced.

“Simon, I’m tired. Take over compressions,” I ordered. “Give me the bag.”

We exchanged positions.

“What kind of outdated cardiac defibrillator is this?” Dr. Hauschild complained, dragging the cart closer to the patient.

“It’s an old model, but it’s pretty good. Set it to ‘synchronised shock’ and dial it up to three hundred volts,” I said.

“I know that, genius doctor, thank you,” Dr. Hauschild muttered, and obeyed.

“I think you will need to shave his chest quickly, he’s got a very hairy chest,” I pointed out.

Dr. Hauschild looked at me angrily.

“Am I blind? Am I blind? Do you think I am blind? You think I can’t see that?”

“No, I just recommend that you shave the chest quickly.”

“Did I *ask* for your opinion?” he hissed. “Did I?”

He pulled the paddles off the defibrillator. He looked at the controls.

“How do I get it to three hundred joules?” he asked, quietly.

“There’s a dial on the right side,” Simon pointed out. “Turn it clockwise.”

Dr. Hauschild dialed three hundred. The defibrillator hummed loudly, then gave three beeps and flashed 300 in green over the EKG.

“It’s ready,” Simon declared.

“Stand back!” Dr. Hauschild ordered.

Simon and I stepped back.

Dr. Hauschild applied the paddles to the chest and squeezed the buttons viciously.

There was a *whump* and Guillermo’s body jerked. We watched the monitor.

“No change!” Dr. Hauschild declared. “Go up to three hundred sixty joules!”

“Just dial it up again, sir,” Simon instructed. “Same way.”

Dr. Hauschild repeated the exercise. The room smelled of burnt hair.

“At least put something on his chest to improve the contact of the paddles,” I said.

“Where are the contact gel pads?” Dr. Hauschild demanded.

“We don’t have them, we just use alcohol wipes to swab the chest,” Simon said.

“No gel pads? I give up!” Dr. Hauschild said angrily. “What kind of an ER is this?”

Simon reached over and gave him a box of alcohol wipes.

“A poor one. A poor ER. Welcome to the real world,” he said.

Dr. Hauschild tossed the box aside.

“Have you seen his chest? How hairy! He needs a lot of alcohol, not just a few useless swabs!”

He grabbed a bottle of methyl alcohol and splashed it on the patient’s chest. He soaked a piece of gauze in alcohol and spread it all around.

He turned back and dialed the defibrillator to three hundred and sixty. It hummed loudly and beeped again.



“Stand back! Stand back! Three hundred and sixty joules!” he warned.

We stood back again.

Dr. Hauschild hesitated. He rested one paddle on the patient’s sternum and looked for a place to rest the other. His hands trembled. The defibrillator gave a warning signal.

“You’ve got to shock him now,” Simon warned, “or it will switch off!”

Dr. Hauschild froze.

“Now! *Now!*” Simon hollered.

Suddenly there was a blue flash over the patient’s chest. Small flames danced on Guillermo’s chest. The odor of burnt skin and hair burst out like a grenade.

“He’s on fire!” Simon cried out in horror.

*There were low blue flames flickering on Guillermo’s chest!*

I lunged forward and grabbed the towel covering his groin and pounded the chest furiously. Dr. Hauschild remained frozen, his mouth open, with the paddles in mid-air.

“What just happened?” Simon asked aloud.

Dr. Hauschild quickly replaced the paddles and was silent.

“What just happened?” Simon demanded again, loudly.

“What’s the rhythm?” I asked.

There was no rhythm at all. There was only a flat line.

“Do *something!*” I begged Dr. Hauschild.

He remained frozen.

I turned to Simon.

“Give him potassium!” I yelled, “*Potassium!* Forty of potassium! We’ve got to do something!”

“*No!*” Dr. Hauschild screamed.

“Give it!” I ordered, yelling louder.

Simon snatched up a vial of potassium and drew it up in a sixty cc syringe. Dr. Hauschild grabbed his wrist.

“If you give it, you’re fired!” he threatened.

I snatched the syringe and needle from Simon and rammed it into a hub on the tubing.

“Don’t you *dare* give it!” Dr. Hauschild warned, his face seething.

I injected it very slowly, watching the rhythm.

It remained flat. We waited another minute in silence.

Still flat.

Another minute.

Flat line for four minutes.

Dr. Hauschild screamed and turned to me, his voice shaking with fury.

“You gave him potassium! You killed him! You’re *fired!*”

