

RETINA TIMES

An Official Publication of the American Society of Retina Specialists

*Bridging the Past and
the Future of Retina*

Meeting 2017
Issue 70

70

Dante J. Pieramici, MD
Section Editor



Dilsher S. Dhoot, MD
Section Editor



Retina Docs to the Rescue

You've finally reached cruising altitude and have just settled into the latest Tom Clancy novel, when all of a sudden you hear, *DING!* "Is there a doctor on board?" We've all been in this situation, minding our own business on a crowded flight when a call for medical assistance is activated.

Perhaps your first inclination is to crouch down in your seat and pretend to sleep—surely there must be a "real doc" on board! Or perhaps you're ready to spring into action; maybe it's a case of altitudinal intraocular gas expansion, which any one of us would be particularly well suited to handle.

Non-ocular emergencies are bound to occur in many of our lives, both in the friendly skies and back on the ground—even in our clinics. (One of our angiographers suffered a myocardial infarction on duty.) We recently caught up with 2 retina docs who recounted their inspiring stories of handling such emergencies.



Nathan C. Steinle, MD
California Retina Consultants
Santa Barbara, California

Please describe what happened.

On Memorial Day 2017, I was staying in downtown San Francisco for the 3-day weekend. I am a runner, so I awoke early and decided to run along the water on the Embarcadero. It was a cool, calm, and foggy morning with very few people on the streets. I was about 2 miles into my run when I saw a gentleman sprawled out on the sidewalk behind a concrete bench.

San Francisco has a significant homeless population, so at first it seemed as if the man was simply "sleeping it off" on the sidewalk. But as I passed by, his haphazard body position caught my eye, along with the fact he was wearing running shorts and shoes.

As I ran over to him, I could immediately tell the man was in danger. He was non-responsive, with chaotic breathing and no discernable pulse. Because the man had a significant chin laceration, his blood quickly covered both of us as I tried to help.

I instantly called 911 and looked around for a landmark—we were at the base of Pier 9, so I told the operator to send help there ASAP. I started CPR on the man, remembering from my residency training how awful chest compressions sound. I heard the crackling of cartilage juxtaposed with the soothing tones of the nearby bay.

The man's cyanotic appearance improved, but his non-responsiveness was a grave omen. I was certain this man was not going to make it. A well-intending British runner eventually came along and stopped to assist. He asked if I was a doctor. I replied, "Yes." The British man then asked if I was a medical doctor, and I replied, "Yes."

As I continued with the chest compressions, I secretly hoped he would not ask the obvious follow-up question, but he did: "What kind of medical doctor are you?" I told the British runner that I was an eye doctor, and he wrinkled his face in partial disgust and let out a visceral "Uh ohhhhh."

'I started CPR on the man, remembering from my residency training how awful chest compressions sound.'

—Nathan C. Steinle, MD

The interaction was less than reassuring. The British runner seemed to confirm my worst fear: this poor gentleman was never going to see his family again. The unresponsive man's mobile phone was laying beside him on the ground, and I remember thinking how awful it was going to be when his friends and family eventually tried to call his phone.

The superb San Francisco emergency response team arrived and took over my chest compressions. They intubated the man on the sidewalk and shocked him several times with an automated external defibrillator (AED). He was non-responsive and in ventricular fibrillation as he was whisked away by ambulance.

How did the patient do?

In my mind, the patient passed away. I couldn't stop thinking about the sorrow the family must have been experiencing. Three days later, I received a phone call from the San Francisco Fire Department asking if I would speak with the family.

I carefully rehearsed my words as I called the man's family. I was going to be sure to tell them that the man did not suffer, that he was at peace as he passed, and that I was certain he was going to call them to say he loved them as he collapsed on the sidewalk with his phone beside him.

Miraculously, the family informed me that the man had *survived!* He had suffered an instantaneous left anterior descending artery (LAD) heart attack while running (the infamous "widow maker"); this explains why he collapsed suddenly, as well as his large chin laceration, and his disorganized body position on the ground. My chest compressions, and the quick-acting emergency responders kept just enough circulation moving that he did not experience significant cognitive impairment.

The family went on to tell me how the man is actually a fellow *physician*... a well-respected orthopedic surgeon. In fact, the man performs medical missions to help impoverished children. He also is the loving father of 3 young children and the husband of a wonderful woman.

Have you kept in touch with the patient or his family?

Yes, we have kept in contact. Father's Day had an even more special meaning this year for this family and me. I am overcome with

gratitude that this man will again be able to operate, staff mission trips, and watch his young children grow up.

Did you feel prepared after years of staring at the “window to the soul” to save a soul?

During my residency training, I performed a surgical intern year, so I had ample experience with coding patients. I think the key message to remember is that bystander CPR is critical in preserving cognitive function and giving the patient a chance at a favorable outcome.

What was going through your mind at the time? People often describe time slowing down during such events; did you experience that?

Definitely, time seemed to slow to a crawl. The vivid memories of that morning will always be with me.

Has this event changed anything in your life in anticipation of another such event?

Yes, I plan to update all of my training—CPR, Advanced Life Support (ALS), and Advanced Trauma Life Support (ATLS). We care for very sick patients in a typical retina clinic, so it is best to be prepared for unstable or crashing patients at any given moment. The ophthalmology team will look to us as physicians to make split-second, life-altering decisions regarding an unstable patient.

What advice would you offer your retina colleagues when facing such situations?

My advice would be to activate the emergency response immediately. I have seen other ophthalmologists hesitate to call 911 in their clinics when a patient becomes distressed. When I have activated the emergency response in my clinics, I have always been deeply impressed by the promptness and skill level of emergency personnel.

A second learning point would be to make sure you know where the closest defibrillator is in all of your clinics.

Finally, be sure to fill out your own medical information under the “Emergency” button on your cell phone. Emergency personnel can access your allergies, medical information, and emergency contact even if the phone itself is password protected.

Has this event changed your view on the fragility of life?

The patient’s cardiologist and neurologist stated that he is in the top 1% in surviving and recovering from an LAD heart attack.

Seeing the joy in his family’s eyes at his remarkable recovery places a frame around my daily life.

After this event, the pressing concerns of a busy clinic seem trivial in the grander scheme of life, and I am even more grateful for my own good health and for my fantastic friends and family.



Elias C. Mavrofrides, MD
Florida Retina Institute
Lake Mary, Florida

Please describe what happened.

The incident occurred in one of our small satellite offices in Central Florida about 8 years ago. A patient was returning for an intravitreal Lucentis injection. He was seen by the technician, who checked his vision and put in dilating drops. The patient was sitting in the dilating room when another patient noticed the man was struggling to breathe, and then appeared to stop breathing.

The concerned patient informed my technician, who immediately summoned me from my examination room. When I was told there was an emergency, I never imagined it would be anything this serious. I saw the patient sitting unconscious in the dilating room, and I was still hoping it would be a simple fainting spell.

As I attempted to wake the patient, I realized he had urinated on himself. The patient was not responding at all, so I quickly realized the gravity of the situation. I verified that someone had called 911, and my assistants helped me move the patient to the floor. I calmly remembered to follow the ABCs—airway, breathing, circulation. I double-checked to confirm that he was not breathing and that there was no pulse.

We then began administering CPR. Fortunately, I had convinced my partners to purchase AEDs a few months earlier. We quickly connected and initiated the AED, which confirmed that the patient was in cardiac arrest and provided an initial shock. When the patient did not regain a cardiac rhythm, we restarted CPR. A few moments later, the AED delivered a second shock—and the patient regained a regular cardiac rhythm and a pulse.

Just as he regained his pulse from the second shock, the paramedics arrived and further stabilized him. They subsequently rushed the patient to the closest cardiac ICU.

How did the patient do?

The patient survived the incident. In the cardiac ICU, he underwent further evaluation, and they confirmed an acute myocardial infarction related to severe coronary disease. He underwent coronary artery bypass surgery and made a full recovery. Within a few weeks, the patient was discharged from the hospital without any residual deficits.

Have you kept in touch with the patient or his family?

I continued to see him as a patient for about 5 years after the incident. He was always very appreciative of what we did to save his life. It was very rewarding to see him doing well for so many years after the incident. The patient moved away from Central Florida a few years ago, so I have since lost touch with him.

‘Fortunately, I had convinced my partners to purchase AEDs a few months earlier.’

—Elias C. Mavrofrides, MD

Did you feel prepared for the emergency?

Fortunately, I felt very prepared to handle the situation. During critical events like this, we realize the benefits of many years of medical training. And being a vitreoretinal specialist prepared me to be comfortable dealing with complex and intense situations.

We spend so much of our time in clinic making important decisions that have a huge impact on our patients’ lives. Vitreoretinal surgery also teaches us to manage complex conditions with confidence and precision. So although I had never resuscitated a person before, I felt prepared because I had helped so many patients.

What was going through your mind during the event? Did time seem to slow down?

Yes, I experienced the sensation of time slowing down. When the incident started, everything seemed to be happening very quickly. I was initially in shock that something this serious was happening in my office. But once I realized he was in cardiac arrest,

Continued on page 13

Award of the Club Jules Gonin, the Arthur J. Bedelle Award, the Retinal Research Award and the Gass Medal of the Retina Society, the Bietti Medal, the Pisart Award from the Lighthouse International, and the Lifetime Achievement Award by the American Academy of Ophthalmology.



James C. Folk, MD

James C. Folk, MD, is the Beisner Professor of Vitreoretinal Diseases in the Department of Ophthalmology and Visual Science at the University of Iowa. He also currently serves as the president of the Macula Society.

At the ASRS Early Career Section luncheon on Sunday, August 13, Dr. Folk will deliver a lecture titled "New Findings in Pars Planitis."

He has published 191 peer-reviewed papers, an additional 192 papers as part of clinical trials, and 28 book chapters or books.

Dr. Folk recently completed serving on the Retina/Vitreous Panel of the American Academy of Ophthalmology's Preferred Practice Patterns Committee.

During his 35-year career, Dr. Folk is most proud of his teaching. He has helped train 78 vitreoretinal fellows and 201 ophthalmology residents, and received the University of Iowa's Residents' Teaching Award in 2016.

Dr. Folk is honored to receive the ASRS Crystal Apple Award. He especially wants to thank his colleagues at Iowa, Drs. Michael Abramoff, Culver Boldt, Karen Gehrs, Ian Han, Elliott Sohn, Stephen Russell, and Edwin Stone, whom he considers kind, ethical, and excellent in vitreoretinal diseases, and says he has learned much from them.

In addition to his membership in the ASRS and the Macula Society, Dr. Folk is a member of the Retina Society and the Gass Fluorescein Club.

Please join us in congratulating Drs. Sieving, Thompson, Yannuzzi, and Folk on their awards.

WHAT'S NEWS >> *Continued from page 11*

everything seemed to slow down. I have a very vivid memory of the entire event as if it were a movie.

Has this event changed anything in your life in anticipation that such a situation could occur again?

Now I pay even more attention when I take those CPR refresher courses. I also think the most important thing to consider is having AEDs more accessible. My request for our practice to purchase these defibrillators was based on what happened to a close friend of mine from high school, who was only 37 years old. A few months before the incident at my office, my friend suffered sudden cardiac arrest while coaching a high school basketball game. He was treated immediately by a physician in the crowd, but an AED was not readily available.

My friend was eventually resuscitated once the paramedics arrived, but it took over 20 minutes. Because he was pulseless for so long, my friend was left with a severe anoxic brain

injury. This episode convinced me that we should have AEDs in our offices, considering that most of our patients are elderly and have multiple medical problems.

Is there anything you would have done differently?

Fortunately, everything turned out well and it seems that the decisions we made were good, so I wouldn't have done anything differently.

Has this event changed your view on life?

This episode has definitely made me realize how fragile life can be. After the incident, I thought about the chain of events that occurred for us to have been in a place to help that patient.

What if he hadn't had an appointment with us that day, and had suffered the cardiac arrest at home with no one to help him? What if the other patient in the dilating room hadn't realized something seemed wrong, and hadn't notified my staff right away?

What if my friend had never had his incident, so I had never even thought to buy defibrillators? What if my partners hadn't agreed to spend the money on the defibrillators, and we wouldn't have been able to resuscitate that patient so quickly? It's amazing to think of how many things had to align for us to be in a position to help this gentleman the way we did.

Financial Disclosures

Dr. Dhoot - ALIMERA SCIENCES: Consultant, Honoraria; ALLERGAN, INC: Advisory Board, Honoraria; GENENTECH, INC: Speaker, Honoraria; REGENERON PHARMACEUTICALS, INC: Speaker, Honoraria; SANTEN PHARMACEUTICAL CO, LTD: Advisory Board, Honoraria.

Dr. Mavrofrides - None.

Dr. Pieramici - ALCON LABORATORIES, INC: Investigator, Grants; ALLEGRO OPHTHALMICS, LLC: Investigator, Grants; ALLERGAN, INC: Investigator, Grants; GENENTECH, INC: Advisory Board, Consultant, Investigator, Grants, Honoraria; REGENERON PHARMACEUTICALS, INC: Consultant, Investigator, Grants, Honoraria; SANTEN PHARMACEUTICAL CO, LTD: Consultant, Honoraria; THROMBOGENICS, INC: Advisory Board, Investigator, Grants, Honoraria.

Dr. Steinle - ALIMERA SCIENCES: Advisory Board, Honoraria; CARL ZEISS MEDITEC: Investigator, Equipment (Department or Practice); GENENTECH, INC: Advisory Board, Investigator, Speaker, Grants, Honoraria; REGENERATIVE PATCH TECHNOLOGIES, INC: Consultant, Honoraria; REGENERON PHARMACEUTICALS, INC: Speaker, Honoraria.

The American Society of Retina Specialists gratefully acknowledges the following Corporate Members who have committed generous support to the Society for 2017.

| Emerald Corporate Members | Platinum Corporate Member | Bronze Corporate Members | |
|--|----------------------------------|---------------------------------|---------------|
| Allergan, Plc | Alcon | Boehringer Ingelheim | Santen, Inc |
| Genentech, a member of the Roche Group | | Clearside Biomedical, Inc | ThromboGenics |
| Regeneron Pharmaceuticals, Inc | | Dutch Ophthalmic USA | Zeiss |
| | | REGENXBIO Inc | |