

## Bicycle Accident 12/21/11 and Consequences S. J. Peale

In riding my bicycle to work, I have a choice between two routes: 1. Over Fairview overpass for a distance of about 4 miles. 2: On a bikeway under both the freeway and Hollister Ave for a distance of about 6.7 miles. The latter is safer with less traffic. On the morning of Dec. 21, 2011, I decided to take the shorter route because it was cold. This turned out to be a bad decision.

I remember crossing Hollister Ave, but nothing else until I was being put into an ambulance for transport to Cottage Hospital Trauma Center. From the accident report submitted by the CHP and kindly brought to us by a CHP officer, we deduced the following events that led to the collision of me and the car. I was approaching the bridge over Goleta Slough by the airport, probably doing about 18 MPH. when a woman proceeded from the 217 off-ramp stop sign directly across the road and struck my front wheel with her right front bumper. She was going into a small parking area for the Goleta Slough overlook, which was on the airport side of the bikeway. My front wheel was turned sideways, and I slammed into her passenger side door as she had kept moving. The day was clear with the Sun at her back, so there was no excuse for her not seeing me.

I was knocked unconscious, which implies a concussion. I broke six ribs, the sacrum at the base of the spine, and several vertebrae were damaged. My left kidney was damaged and my left lung severely bruised. The damaged kidney was bleeding badly, which bleeding is very difficult to stop. I think a CAT scan was done to determine the extent of the damage. If the bleeding of the kidney cannot be stopped, it must be removed. The bleeding was apparently stopped with an angioplastic technique, where I think an artery in my leg was entered with a probe, the probe was threaded to the kidney artery that was bleeding, where the latter was plugged with several small coils. Success was not clear, as my hemoglobin readings kept dropping. A reading of 14 (grams/100 ml) is at the lower end of the normal range. Mine was initially 13.7, which is normal for me. It dropped to 11 then 10, 9, 8 and finally 7.2, at which point I was given two units of blood several days after I entered the hospital (Dec. 24). Part of the reduction in hemoglobin level may have been due to the continued saline drip that was given to me. I gained 15 pounds of fluid, as it was not being eliminated, and that may have diluted my blood and reduced the hemoglobin level.

I was initially in SICU, where I spent the most miserable night of my life. I was given two 1 mg doses of morphine that allowed me to maybe sleep a total of two hours. My left back rib cage was extremely painful, so much so, that I did not notice the much lesser pain near my spine. I was moved from SICU to a regular room in 5 Central after the first night. In that process, I had to be shifted from a gurney to a bed in the room after the transport. I had a catheter inserted in my penis. The Foley bag was attached to the gurney, so when they pulled me over to the bed, the catheter was pulled out with the balloon still inflated. My urethra was severely traumatized and proceeded to bleed profusely. However, the bleeding was stopped, and I was able to pee normally for several days into a urinal. I have a habit of pressing on my urethra to empty my penis of residual urine, and I made the mistake of doing that after the trauma. The clot was disturbed, and I bled again during urination. I

had one time of urination which did not bleed, but the next one did, and a catheter had to be reinserted to allow the urethra to heal. It had to remain in place two weeks, I was told.

My problems kept multiplying. My digestive system shut down, so I could eat nothing. I think the doctors called it ilius or something similar, where the abdomen becomes bloated, and material stops moving through the intestines. There are pockets of gas. My stomach was bloated, and I was nauseous, because fluid deposited in the stomach was not passing into the intestines. I had xrays of my abdomen to verify the diagnosis, and a tube was passed through my nose to my stomach to draw off the accumulating fluid. That relieved the nausea, but the tube insertion by the nurses was painful, and my throat was irritated in the back. After two days, the pressure in my abdomen subsided, and my stomach area and abdomen became softer. The stomach tube was removed, and I was given a meal of clear liquids—chicken broth, jello, juice, etc, which I kept down. After another meal of clear liquid, I was asked to eat solid food. I chose oatmeal with a banana, brown sugar and raisins. But I still had zero appetite, and had to force myself to eat it. That and subsequent meals stayed down, but I had to force feed myself every time because of total lack of appetite. Even with the small portions that I chose, it was difficult to get the stuff down. I had gone almost a week without food before the first clear liquids stayed down. I got that capability just in time, as I was threatened with inter venous feeding, which involves significant surgery to set it up. Since, I was eating again, the inter venous saline solution was halted. This was about the time of the transfusion, which brought my hemoglobin up to 9.1, which later stabilized at 8.9 and proceeded to climb slowly. Makes me think the saline solution had something to do with the low hemoglobin. All this time, my blood pressure was reasonably stable, but my pulse has been between 80 and 100/min compared with a normal of 55 to 60/min. This may be due to the low hemoglobin, the pulmonary embolisms, discovered later that day, or both. I will know I am mending when my pulse returns to normal.

Things got worse. My blood pressure, pulse and the percentage of oxygen saturation of my hemoglobin were checked every 4 hours or less. To keep the oxygen saturation above 90%, I was put on oxygen at 2 liters per minute. I had oxygen for most of the time I was in the hospital, but am home now without oxygen. The criterion for allowing me to go home was that the oxygen saturation remain above 90% without supplementary oxygen while I was walking around. After sitting up all morning without oxygen on Dec. 28, talking with visitors, reading the paper, etc. I was given the test and flunked. The nature of the drop, I think made Dr. Daniel suspicious, and a CAT scan was ordered, which discovered blood clots in my lungs. I assume this was the reason for the drop in oxygen saturation, but I am not sure. In addition, a pool of bloody fluid was found in the cavity between my injured left lung and chest wall. It was a good thing that I was not allowed to go home. A wire filter was inserted into the major vein coming from the legs and groin to catch any further clots that formed there. The filter was to be removed eventually. I was also started on a drug called Lovenox that thins the blood. This had to be injected into my belly fat, which I had to do myself after coming home. This was to be replaced later by coumadin (warfarin). A shunt was inserted in my left side to drain the 300 ml of fluid from my plural cavity. The shunt was removed after a couple of days and several xrays verifying that no more fluid was collecting. Now I was on blood thinner, when I had a shredded urethra that was supposed

to clot and heal.

I came home on Jan. 1, 2012 a lot worse for wear. My oxygenation was about 96%, so I did not need the oxygen that had been ordered for home, when I was first going home prior to the failure of the test. I slept intermittently with persistent discomfort using a foam wedge that raised my shoulders and head. I tried once without that wedge, and my back ached so much I had to reinstall the wedge. The rib pain has largely subsided now, but I have a huge bruise on my left side where I struck the car. My back is weak and a little painful when I move, as in sitting down in a chair. Initially, I could not walk without supporting some of my weight with my arms on a walker, but as of today, Friday, Jan. 6, I can walk without the walker or cane, although slowly. I walked with Robert down to the end of the street and back, yesterday and the day before. Doug had come down for Christmas, so was here to help Priscilla until I came home from the hospital on Sunday, Jan. 1. Robert came from Florida to help on the following Tuesday night and stayed until Sunday. Priscilla was very stressed, so the boys' presence was, I think, a great comfort.

A couple of days after I came home I started having painful bladder spasms that forced urine around the catheter so I dribbled outside. The urologist, Dr. Curhan, says that urine passage is normal and not to worry, but I do. Will I be incontinent in the end? It turns out that Curhan was wrong. The bladder spasms causing the leakage were due to a *Proteus* urinary track infection. The spasms were becoming more frequent with a persistent urge to pee in spite of the catheter. I saw Dr. Daniel on Thursday, Jan. 5, and he referred me to Urology when I told him of the bladder spasms.

The night before, I was convinced that I had an infection, with  $T = 100^\circ$ , called the clinic, got Dr. Rhodes, and he told me to go to the Goleta Valley Emergency room for a culture or wait until my visit to the clinic to see Daniel the next day. I chose to go to the emergency room because of temperature and the cloudy nature of the urine with floating debris. The bladder spasms were severe, but infrequent at the time, and I associated them with a misplaced catheter instead of the infection. A urine sample was taken and a culture begun. I was advised not to start antibiotics, as the nature of the infection was not defined, but I was given one pill to take if my temperature got above  $100.5^\circ$ . It was a good thing I went to the emergency room, as the results of the urine culture with a *Proteus* infection diagnosis were available to Dr. Rhodes the next day. He prescribed Amoxicillin for the infection and Uribel for immediate reduction of the bladder spasms. The first drug was obtainable, but the second had to be ordered. By this time the bladder spasms were almost continuous, and it was all I could do to suppress them as advised by Dr. Rhodes. I took the first antibiotic pill at about 6:00 pm on Jan. 5, but the bladder spasms were not reduced initially. Not for more than about 4 hours after the first pill, did the bladder contractions wane, but I was able to sleep much of the night, with no further bladder pain. When I really needed the uribel the first night, I did not have it. The next day I decided not to get the uribel that had been ordered, because the bladder spasms have subsided from the antibiotic alone, and I felt pretty well.

Today is Friday, Jan. 6, and the unused oxygen equipment and associated tanks are to be

picked up this afternoon. Later, we meet with our lawyer team headed by Josh Lynn.

Today is Saturday, Jan. 7. I have had four Amoxicillin pills, and the urinary track infection seems to have stabilized. At least the bladder contractions have mostly ceased, and my urine has a better color and clarity. Eight more days of the antibiotic. My stool was loose today, which is probably the result of the antibiotic killing the intestinal bacteria. I slept poorly last night, and had to leave the bed with the wedge for the recliner chair. That relieved the back pain that I had with the wedge, and I was able to sleep some.

After dinner on Saturday, I had a severe pain in the left kidney region on my back. There was no position I could assume that would change the pain. A Dr. Vallee advised me to go to the emergency room to check it out, as it could be a serious complication. So Robert and Priscilla transported me to the SB Cottage hospital emergency at about 9:00 PM. where another CAT scan was done. Fortunately, there was no further internal bleeding, and everything seemed to be ok. The pain may have been caused by an infection in the damaged kidney. I was given an inter venous dose of antibiotic, and several administrations of pain medicine. That made me nauseous, and I vomited my dinner sometime after midnight. I later had dry heaves as I was waiting for the car to be returned to us. I was also given some oral narcotic to control the pain. It was after 2:00 am before we left the emergency room. The pain medicine I was given allowed me to sleep fitfully until about 7:30 am. I got up and had breakfast along with my Amoxicillin for the urinary track infection. I had another pain pill at 10:00 am and proceeded to sleep the rest of the day. I woke up at 5:00 pm with no appetite, but I forced myself to eat through my semi nausea. Another Amoxicillin pill taken with my dinner; all stayed down and I felt a little better. I decided not to take another pain pill, as the pain seemed to be under some control. I think the pill was the cause of my feeling awful. It is now 12:20 am on Monday, Jan. 9, and I am wide awake from sleeping all day. No sleep the rest of the night.

On Tuesday, Jan. 10, I had the stitches removed where the tube was inserted to drain my chest cavity. This was done by a very pretty and smart nurse practitioner, Eileen, who had been watching over me when I was in the hospital. I had another appointment with an orthopedist that afternoon related to the cracked sacrum. All he did was asked me if I was having any problems there, which there were none. I think he spent only about two minutes with me, but I suppose the check was necessary. No appointments on Wednesday, but Thursday, Jan. 12, I had the catheter removed. I could pee again, but that night, Jan. 12-13, I was up six times to pee. I do not know where the huge volume of urine was coming from (1500 ml) as I had not drunk that much. Maybe I am eliminating accumulated fluids. Between bathroom excursions, I was actually sleeping soundly. But the interruptions meant I was really not that rested in the morning.

Today is Friday, Jan. 13, and other than being somewhat sleepy, I do not feel badly. The back pain is mild and I am able to sit at my desktop for limited time periods. I see Dr. Daniel on Monday. In the meantime, the coagulation rate of my blood is being monitored with frequent blood tests, and the coumadin dose adjusted to keep an INR index between 2 and 3. The index is just the ratio of the time to coagulation compared to normal, so 2

means it takes twice as long to coagulate as it would normally. I will apparently be on the coumadin for six months. I have one other appointment next week with a neurologist related to the damage to my spinal column. I think it will be about as eventful as my visit to the orthopedist.

The visit to Daniel on Monday, Jan. 16 was uneventful, except he was on hospital duty the night before and was one hour late for my appointment. I had another coumadin blood test also and the visit and test meant we spent the entire morning at the clinic. My walking has improved, and Priscilla and I walked for about 30 minutes after lunch, after which I took a 1.5 hour nap. My back pain has eased so I will try sitting at the desktop tomorrow.

This is Tuesday Jan 17. Back too uncomfortable to sit at the desktop. Only place my back is comfortable when sitting is in a recliner. I see a neurologist tomorrow after an x-ray, so I should be better informed about my back tomorrow. On Jan. 18, after 8 more high intensity xrays of my spine, the neurologist said that my collapsed vertebra was worse than it was when I was in the hospital. That probably meant that it more crushed than it was initially. That is probably because I spent more time upright after going home which caused the further collapse. The neurologist, Dr. Connor, also pointed out that I have a lateral curvature of the spine, which looked pretty bad on the X-ray. This curvature preceded the accident. I have to see him again on Feb. 29 with more X-rays, when I will ask about the seriousness of the curvature and whether there are exercises that will correct it.

On Friday Jan. 20, I had the wire filter removed from the large vein from my legs. The filter was to catch any clots formed in my legs before they reached the lungs. Since I was now on coumadin to prevent further clots from forming, the filter was no longer needed. To remove the filter, a vein near my collar bone was entered and a probe pushed straight down through my heart to the leg vein. the filter is like an umbrella with six ribs facing down. The filter was grasped by the probe and pulled into a cylinder to collapse the ribs of the filter. It was then pulled out with the probe. The whole procedure took about an hour. There was actually a blood clot caught in the filter, so it apparently did serve a useful purpose. The appointment was for 9:00 am, but we sat in the reception area until 10:30 am, where some paperwork was completed. The reason for the delay was that there was no bed available until that time. I transferred into a hospital gown and waited until 12:30 pm before I was taken to the place where the filter was to be removed. I got back to the room at 1:30pm and finally got some lunch at about 2:00 pm. I had to stay until 4:30pm while my vital signs were monitored. All day in the hospital was no fun.

I have absorbed huge amounts of radiation during the course of treatment. In the following the unit of radiation used is the rem (Röntgen equivalent Man) which is weighted by the effect of various types of radiation have on a person. The only measure I have of what is excessive is that I think 5000 mrem is the upper bound on radiation absorption per year for nuclear workers. I had three sessions of CT scans, with I think at least two scans per session that covered various parts of my body. From a document "Doses from Medical X-Ray Procedures," each CT has the following dosage: CT head 200 mrem, CT chest 800 mrem, CT abdomen 1000 mrem, CT pelvis 1000 mrem. In the first session I had all of these CT scans,

which may have been done multiple times. Later, I had additional CT scans of the abdomen and chest each with 1000 mrem exposure. I had enumerable X-Rays of my abdomen, chest and spine. The chest xrays are minor exposures, but those of the spin, and abdomen are several 10s of mrem according to the chart—some approaching 100 mrem. Finally, during the angioplastic procedure to plug the artery in my kidney, I was subject to continuous xray fluorescence for an undetermined time that must have exceeded several minutes. The xray fluorescence was repeated during the insertion of the filter into the vein from my legs, and for 4.9 minutes during its removal. I may have had a total exposure exceeding 15000 mrem, which is more than three times the maximum yearly dose for nuclear workers. So the radiation that was necessary to make the necessary diagnostics to keep me alive may ultimately shorten my life from what it would have been had there been no accident.

On Tuesday and Wednesday Jan. 24-25, I developed flu like symptoms. Dry unproductive cough, temperature that reached 101.6°, but then hovered near 100.7° for most of the night. It was down slightly on Wednesday, but was above 100 several times during the day. The last symptom was a dripping nose with violent sneezing. But my nasal passages remained open—unlike the behavior with a cold. By Tuesday, Jan. 31, my cough and runny nose were considerably reduce and I was apparently nearly over the cold.

On Friday, Jan. 27, I had a sense of well being for the first time. Probably because of less back pain, I slept pretty well last night, and I was recovering from the cold. On Tuesday, Jan. 31, I went to work for the first time. My desk chair is reasonably comfortable, but I am not sure my back will last all day.