

John Liezert

22 years old

John Liezert, a twenty-two-year-old college senior, entered the health care system abruptly. He remembers.



John: In March of my senior year I started feeling ill. I thought I had an upper-respiratory infection. The student health center thought I had some form of asthma. After a week of treatment I was getting worse. I was exhausted. I could not sleep and began coughing and had difficulty breathing. I finally went to the emergency room at midnight one evening. I was later hospitalized and ended up being in the local hospital and then in Kansas City – my home town – for two months.

It turned out that I had nearly a gallon of fluid pressing on my heart and lungs, which was causing me to cough and become short of breath. They began to treat me and did many tests, including heart catheterization. When the tests were completed, they gathered my family in the hospital room and told us that I probably needed a heart transplant. I had cardiomyopathy [usually caused by a viral infection], and without a new heart I would surely die soon. They told me that I was “top priority” on the transplant list and as soon as a bed became available I would be transferred to Saint Luke’s Hospital for a heart transplant.

After John was stabilized and the diagnosis of cardiomyopathy was made, his heart began to fail and a special mechanical

pump – a “balloon pump” – was inserted to take over for his failing heart. John remembers the series of events clearly.

John: I was in terrible shape. They rushed me down to the catheterization lab where they inserted a balloon pump. It made it easier on my heart. When they put the pump in, they had to thin my blood, so I was on an anticoagulant to allow the pump to function and “assist” my failing heart. When they removed the pump, they reversed the anticoagulation.

John had been in the hospital for one week. He was being prepared for heart transplantation and had already had two days of special assistance from the balloon pump. His anti-coagulation (blood thinning) was reversed when he was taken off the balloon pump and he was using his own heart again, unassisted. His stroke occurred in the hospital as he was being monitored very closely. He recalls the series of events surrounding the stroke.

John: Three of my buddies were visiting me. Suddenly my head felt heavy and everything I tried to do was three times as hard. I looked at them and realized that my mouth was moving funny. Something was not right. I lost power on my right side and was talking out of one side of my mouth. I knew something was wrong but I could not put my finger on it. One of the nurses came in and she called the SWAT team for help. Then just as suddenly as these feelings had started, they vanished, and I was better again. I breathed a sigh of relief, thinking that whatever it had been, it was now over. But then, just as the stroke neurologist arrived to examine me, the second stroke struck. This was the big one. My entire right side was paralyzed and it did not get better this time.

The SWAT (Stroke Watch Action Team) at Saint Luke's is staffed by Stroke Center (SC) nurses who go to any place in the hospital where someone has developed stroke symptoms. The SC nurse evaluates the patient and then calls the stroke neurologist. This team exists to make sure that patients who develop stroke symptoms get immediate attention and intervention.

The stroke neurologist arrived on the floor to reevaluate John after his ten minutes of spontaneous resolution from the first stroke warning. It was a brief interval followed by more severe symptoms.

John: I knew I was not talking right. I sounded funny. The nurses pointed to a man who is now my father-in-law and asked me who he was. I said, "That's my mother-in-law." Not only was I not married but obviously he wasn't my mother-in-law. I knew it was wrong but I didn't know the right answer.

Being in the hospital under very close observation when this was happening had its advantages.

John: They rushed me down for a CT scan. I was scared but everyone there seemed to know what they were doing. They were calm and controlled and that calmed me down. One of them said they were going to administer the tPA and tried to explain the procedure to me. They said it acted slowly and they would inject it very slowly. I believe they said it could take half an hour before I might feel any of the effects. I bet it was not more than three to five minutes before I was able to make a fist with my right hand. Of all the things I went through, the stroke was the scariest – it was more frightening

than the transplant. My father-in-law held my hand. I wanted to squeeze it but I could not. But all of a sudden I was able to. That is when I lost it. I cried so hard. It was overwhelming! My speech also started getting better.

The medical team began its search for the underlying cause of the stroke. In John's case the source of the abnormal clot was probably related to his failing heart and the balloon pump.

John: They believed the source of the clots was related to the events surrounding the balloon pump. On the pump I was anticoagulated, and when the pump was removed, they had to reverse this effect. Somehow in this life-saving use of the pump, a clot formed, broke off and lodged in my brain causing the stroke. Without the pump I would undoubtedly have died while waiting for a donor heart.

Any mechanism that might lead to excessive clotting or "sludging" within the circulatory system is a good source for clots, which can travel to the brain and cause damage. John was placed back on the blood thinner and no more abnormal clotting occurred. His stroke had been reversed but his heart was failing.

John: I was getting weaker. I was not able to do anything but lie in bed for two months. I lost 40 pounds. I had absolutely no muscle at all. I was skin and bones. My ejection fraction [a measure of heart's pumping action] was very low and I was pretty much out of it. They inserted a LVAD, a left ventricular assist device, into my abdomen, which allowed the blood to bypass my left ventricle and did the pumping for me – it was the bridge to transplant. With the LVAD in place, my ejection

fraction went up to 30 percent, which kept me alive and ready for the transplant. And then, on October 8, they called me and said, "Hey, we think we got something for you; don't eat dinner tonight."

John's perspective on the multiple aspects of his care is unique.

John: I remembered the TV show "ER," the episode about a stroke victim. I did not have that paralyzed feeling where she could not speak because I was able to speak, but at the end of the show when she looked at her hand and started crying because she was able to move it – that was it! That was dead on! During my reversal it felt like people were flying past me in every direction, and they probably were, but I was able to mumble and talk out one side of my mouth. I am not sure if people understood what I was saying. After being unable to flex a muscle, make a fist or wiggle my toes and then all of a sudden being able to, that was totally amazing.

If his stroke had not been reversed, John would not have been a candidate for the heart transplant.

John: I cannot imagine where I would be without it [the stroke reversal]. I guess it is probably pretty safe to say that if I had been paralyzed with a stroke, I would not have gotten the transplant and would not be here talking to you today.

John is an advocate for educating everyone about the desperate need for organ donors, especially hearts.

John: When I speak on behalf of the transplants, people say,

“You are only twenty-five years old,” and I answer, “Well – there was a kid up there a month after me who was sixteen, so ...” The heart transplant program means a lot to me, especially because I get to meet quite a few families of donors and that is an amazing experience.



COMMENTS

John’s story could have ended in tragedy at multiple points as his heart failed. His in-hospital stroke was quickly recognized and reversed. This allowed him to remain a heart transplant recipient. At age twenty-five he is back on track to a future in which he can attain stable cardiac status and continue to move both sides of his body.

This is the story of two great teams at Saint Luke’s Hospital – the stroke team and the heart transplant team.

