

Retinal Detachment Is in The Eye of the Beholder

Tara Suri

Stuyvesant High School, United States

tarasuri20@gmail.com

“Just hear those sleigh bells jingling, ring ting tingling too.” Music crackled out of our family’s radio. My mother’s humming filled the air, while we decorated our Christmas tree.

Excitement permeated the room because we would be leaving for vacation in a few weeks. As we decorated our Christmas tree, my brothers and I talked about what we wanted for Christmas. With gleeful grins, we imagined our presents tied up with thick red bows and colorful wrapping paper under our tree. When we asked our mother what she wanted, she responded, “A new pair of glasses would be nice, but I need my eye prescription before we leave for our vacation in India.” As she strung red-colored beads around our tree, she excitedly told us that designer glasses were very cheap in India and how she was going to buy a few pairs. My brother and I thought nothing of it. We continued to hang ornaments on the tree and talked about our upcoming trip. This would be our first time going to see the Taj Mahal, one of the Modern Seven Wonders of the World. We were also excited to visit our paternal grandparents’ home because they had just renovated it and were planning to throw a big party for family and friends.

A week later, as I walked into the hallway, I brushed the snow off my boots onto the carpet and my mother took off her coat and hung it on the coat rack. I approached the receptionist and gave her our names, and my mother signed the attendance sheet. The tune of Jingle Bells music could be heard playing faintly in the background. We sat down on the gray-colored armchairs and

waited for the doctor. I began to browse and casually flip through the random magazines strewn on the coffee table. I looked to see what my mother was reading and noticed that her Glamour magazine was resting on top of her baby bump. Suddenly, we were called into the exam room. We walked into exam room no. 2 and continued to wait for the doctor. My mom raised up her magazine to show me an ad for a black pair of designer sunglasses that she hoped she would find in India. The ophthalmologist arrived and he started the eye exam. The exam seemed routine until the doctor put a lens over my mother’s eye and flashed a big light. As soon as he looked through the ophthalmoscope, everything changed. The ophthalmoscope is a special instrument with a special magnifying lens that provides a detailed view of the whole eye, allowing the doctor to see any retinal holes, tears or detachments.”

What the ophthalmologist saw was a retinal tear in her left eye. A retinal tear occurs when the vitreous (a colorless, gel-like substance) contracts and tugs on the retina. The retina is a thin layer of light-sensitive tissue that lines the back of the eye. The retina is vital to sight because when light enters through the eye, it must pass through the retina, so that the electric impulses can be sent to the brain allowing us to see.

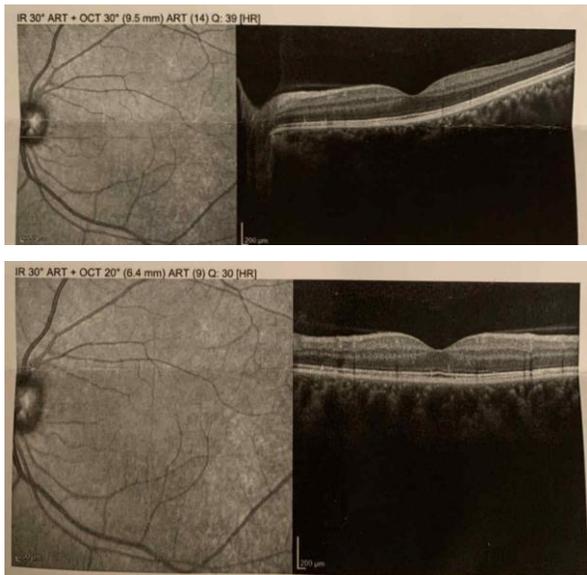


Figure 1: These images show the layers of the retina. The photos were taken with an OCT (optical coherence tomography) imaging machine, it is a non-invasive imaging test that uses light waves to take cross-section pictures of the retina. These images were taken in December right before my mother had laser surgery done. The line it shows the beginning of a retinal tear.

The doctor further questioned my mother about whether she had recently experienced any of the following warning signs that almost always appeared before retinal detachment occurred or has advanced, such as appearance of floaters — tiny specks that seem to drift through your field of vision, flashes of light in one or both eyes (photopsia), gradually reduced peripheral vision, or a curtain-like shadow over your field of vision.

My mother responded that she did not seem to notice the symptoms to be occurring. However, she indicated that she did notice a few floaters on some occasions which she thought was normal.

Next, the doctor proceeded to inform her that retinal tears, if left untreated, would lead to retinal detachment, which would lead to blindness. Retinal detachment is caused when fluid passes through the tear that is formed from a retinal tear and causes the retina to be ripped away from the supporting tissue. If this happens, your vision is affected because the retina is unable to function

properly. In the areas where the retina detaches, blood supply is lost, which leads to blindness.

After his explanation of retinal tears, the ophthalmologist sent my mother to a special machine to perform a non-invasive imaging test called Optical Coherence Tomography (OCT). OCT uses light waves to take cross-section pictures of your retina. The OCT allows the ophthalmologist to see each of the retina's distinctive layers and their thickness. These thickness measurements are used to help with diagnosis and treatment.

I saw my mother sit in front of the OCT machine and rest her head on a support to keep it from moving. She looked into two viewfinders. Then the machine equipment scanned her eyes without touching it. Scanning took about 5 to 10 minutes. She said she saw bright orange lights inside the viewfinders, similar to a morning sunrise.

Over the next two days, my mother saw several ophthalmologists, who all recommended surgery called the scleral buckle. A scleral buckle is when a piece of plastic or other hard material band is placed on the sclera. Unfortunately, the doctors were not willing to operate on my mother because she was at the end of the second trimester of her pregnancy. As a result, my mother had to make several visits to doctors to explore alternatives to surgery. Additionally, the winter holidays were in two weeks and many doctors were leaving for vacation. All of them agreed that treatment was necessary and had to be performed immediately. Yet, all the doctors were hesitant about administering surgery on a six-month pregnant lady because there were potential health risks to the baby.

One day after one of my mother's appointments, she came home with an eye patch. I ran over to my mother, asking her what was on her eye. She explained that she had a procedure performed called photocoagulation. The procedure uses a laser where the laser beam travels through the pupil and burns the tissue around the retinal tear, acting as a binder to the underlying tissue. My mom explained that during her procedure, she sat in front of the laser machine and the

ophthalmologist sat opposite of her on the other side of the machine. The laser procedure was performed on an outpatient basis. She said that as a result of the procedure, she had to avoid activities that might shake or rattle her eyes — such as running — for the next couple of weeks. As a child, all I understood at the time was that my mother might go blind, and she needed treatment right away. That was terrifying for me, and the thought of becoming blind was even tougher on her. During the few days after the procedure, she looked like a mysterious movie star, always wearing sunglasses indoors. I thought she looked awesome back then. Now I realize that she had to wear them because of how sensitive her eye was from the treatment.

During the next few days that my mother sought her second or third opinion from the various ophthalmologists, details concerning the trip were becoming unclear. Late at night, I would hear hushed whispers coming from my living room as my parents discussed if we would be traveling to India. Back and forth, my parents would talk about the flight tickets that were already purchased and non-refundable, the effects of airplane cabin pressure, the possibility that something else could happen to my mother's eye during the trip. My brothers and I were disappointed as we thought about all the fun we would miss if my parents cancelled the vacation. It is only now that I truly understand that my mother was concerned about the effect of air pressure on her recently treated eye.

Turning onto the runway, our plane started to prepare for takeoff to India. I glanced over at my mother. She was always a nervous flyer, but this time she looked different. She closed her eyes gently as the plane gradually rose up into the air. She took deep breaths. She clung to the sides of her seat. She mumbled to herself "It will be alright." The thirteen-hour flight had just begun. During the flight, she didn't experience anything strange, and we were all thrilled when we finally landed in New Delhi.

The doctor told us that if she had waited any longer, she could have gone blind. My mother

never expected this to happen to her. She serendipitously went into her eye appointment. She told me later that the only other symptom that she experienced that was out of the ordinary was when she would stare closely at the mirror, her left eye would swell up with tears. The sudden appearance of many tiny specks, random shadows, and flashes of light in her vision did not used to occur.

Some of the factors that potentially increased my mother's risk of retinal detachment is her family history of retinal detachment and myopia. Eyes were never a strong suit in my family. My mother's side of the family has a history of eye problems. I remember asking my mother why this happened to her. My mother would tell me about her grandma. "She would have a lot of water coming out of her eyes and she had difficulty seeing." I didn't understand how this could just happen to someone. I asked my mother why she didn't go to the ophthalmologist more often if she knew of family members with the same problem. My mother thought that eye problems only happened to the elderly, not pregnant women. Also, my grandma was never diagnosed because she was a housewife's farmer in China with limited access to healthcare. Limited eyesight causes mobility issues. My great grandmother had difficulty traveling by herself anywhere outside her home. My grandmother recalled that she and her siblings had to assist my great grandmother with many of the daily chores around the house. I listened to these stories with fascination.

Studies have shown there may be a correlation between retinal detachments in Southeastern Asians compared to European White race persons. This is because Southeastern Asians tend to have a higher risk of myopia, in addition to a longer axial length.

In Singapore, 1993 to 1996, 1126 retinal detachment operations were performed. The average annual occurrence of retinal detachment operations was 10.5 per 100,000 people. The annual incidence was highest for Chinese: 11.6 per 100,000, and the lowest was for Indians: 3.9 per 100,00. The age relative risk of retinal

detachment operation for Chinese compared with Indians was 3.0. My mother's family is from southeastern Asia, specifically China. According to the evidence recorded from the 1126 test subjects, the risk for people of Chinese descent are about 10 percent more likely to be diagnosed with retinal detachment. This study shows how retinal detachment is more prevalent in certain races and might be a reason why my mother suffered from a retinal tear.

Three months later, the time came for my mother to give birth. It was a difficult experience where my mother was concerned about her eye as well. My mother was very nervous about the whole ordeal. She worried she would strain her eye while giving birth. Doctors warned her about the possible dangers of the effects of giving birth. Sometimes during the second stage of labor, the face is under a lot of strain and blood vessels in your eyes can burst. Because her laser surgery was supposed to be a temporary fix, my mother wasn't sure if it would hold through the delivery, or she would need to have eye surgery performed after delivering the baby. When she was in labor, she tried not to push from her face, and used her stomach muscles.

It has been six years since my mothers' laser, and she still goes for her bi-annual checkups at her ophthalmologist. (See Figure 2 below for the condition of the eye in 2019)

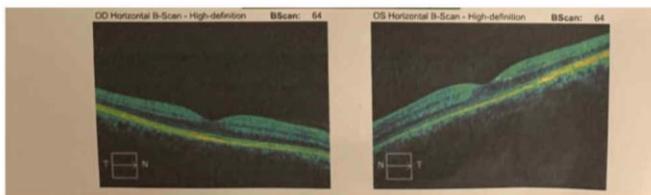


Figure 2

Note: These images were taken after my mother's laser surgery. The photos show that the tear was sealed by the laser and the eyeball is intact in 2019.

But I know that psychologically, she will never be the same. Although my mother's physical condition is holding up, she often checks her peripheral vision to try to determine if she is losing her field of vision. In the morning, she often complains that she is seeking a lot of shadows. Sometimes at night, she claims she is seeing flashes and has to lie down for a while to rest her eyes. She thinks that it is possible that something could happen to her other good eye. I sometimes worry about my own eyes. Wondering if I have inherited genes that will lead to eye problems in the future.

When I researched my mother's condition, I realized that the anxiety she experienced was common. Patients undergoing surgery commonly experience psychological effects such as anxiety or depression. Preoperative anxiety is usually influenced by the patient's concern about his or her general health, uncertainty regarding the future, post-operative pain, and loss of independence. Preoperative anxiety exists where patients experience disquietude before surgery that continues to grow after surgery. Researchers have correlated the degree of preoperative psychological stress and recovery and emphasize the importance of emotional factors in treatment. Studies done in Saudi Arabia stated that psychological disturbance reported only by 17.5 percent of the studied patients. "Preoperatively 71 percent of them showed mild to moderate anxiety. After the procedure, 80 percent of anxious patients maintained or experienced a decreased level of anxiety. In addition to anxiety, 20 percent of anxious patients developed postoperative mild depression. 14 percent of the psychologically disturbed patients had moderate depression before surgery which became milder after it. Another 14 percent showed severe anxiety and moderate depression only postoperatively. Severe visual impairment was reported by 86 percent of psychological disturbed patients." These percentages show that there are many psychological effects that occur to patients during the pre-operative stage and post-operative

stage of retinal detachment that warrant medical treatment as well.

The engine hummed as we drove along the highway. Lights flashed as cars zoomed past us. My mother drove slowly. "Why are we driving so slow?" I asked, peering through the dark. No one was near us. "It's hard to see." My mother replied. I wondered what she was talking about. It was dark, but definitely not pitch black. "The lights are too bright nowadays; it's hard to drive," she added. I took a look at the other side of the highway at the cars traveling in the other direction with their headlights on. The lights didn't look strange to me. My mother explained that "The red lights did not used to look like this. I used to be able to drive at higher speeds during the night." I can never truly understand what my mother experiences on a daily basis. My mother told me once that "It's almost like someone is taking a picture of you with the high flash on, except when you look around there's no one there." Even though the laser procedure has kept the retina attached, I know that her vision is not the same. Occasionally, I can see the worry in my mother's eyes, and she will suddenly close her eyes because she sees a flash of light or a shadow. There is tension in her voice, as she asks if a bug flew past because she is unsure if she saw a bug or spots floating around. Sometimes, when we are outside, she sees shadows move across her line of sight when there are none. My mother becomes weary from her vision problems. Although my mother can see, her worry never ceases. A person's life really is in the eye of the beholder.

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