



(From left to right):
Dr Anselm Lee, Abdulhameed and his family

HOPE FOR ABDULHAMEED WITH SICKLE CELL ANAEMIA

“There is hope for a cure in every sick child, as long as we (as parents) prevail on our part. My Abdulhameed is fine and chirpy now, but I know the pain and suffering he has gone through. I am very grateful to Dr Lee for giving us this alternative treatment option and my family owes it to him and everyone at Mount Elizabeth Hospital for giving him a new lease of life.”

~Madam Sogra (Abdulhameed's mother)~

Abdulhameed was only three when he was diagnosed with sickle cell anaemia. It all started with him having persistent fevers and body aches that would not go away. When he was first hospitalised in a local general hospital in Bahrain, the doctors merely prescribed medication to bring down his temperature.

It was only when Abdulhameed had his subsequent fever attack that his mother, Madam Sogra, rushed him to a paediatric hospital for observation. This time round, the doctors ran some tests and found out that he had two defective genes, sickle cell and thalassaemia, which he unknowingly inherited from his parents who have these traits.

Sickle cell trait is different from sickle cell anaemia. People who have sickle cell trait do not have the disease, but they have one of the genes that cause it. Hence, those who are stricken with sickle cell trait can pass on the gene to their children. In such cases, children of parents who are carriers have a 25 percent higher chance of getting the disease.

Madam Sogra recalls, “I was shocked. I didn't know I am a carrier so when the doctors at the hospital asked if my husband and I are carriers, our reply was ‘no’ and the doctors didn't probe further.”

For the last 10 years, Abdulhameed was constantly in pain and had problems walking and sitting. Because of his condition, he was unable to go to school. He spent most of his time in and out of hospitals for various complications like swelling and infections, as well as for treatment that included blood transfusion and even surgery. The treatment only helped to relieve his symptoms and treat his complications, but he was not getting any better. His condition took a turn for the worse when he was 10 years old - it became so unbearable that he was hospitalised for two years.

Having exhausted all the treatment options, Abdulhameed's attending doctor in Bahrain suggested a stem cell transplant which might offer a cure for him. Desperate to save her son from the torments of the disease, Madam Sogra decided to give it a try.

Luckily for Abdulhameed, he was able to find a match among his three siblings very quickly. His elder sister was a suitable donor. Under his doctor's recommendation, he came to ParkwayHealth's hospital for his stem cell transplant.

Abdulhameed arrived in Singapore in February 2009 with his family. They consulted Dr Anselm Lee, Medical Director and Consultant at the Children's Haematology and Cancer Centre, who went through the treatment plan and prepared him for the side effects that he might have after chemotherapy. He was admitted on 7 February and began his transplant process with chemotherapy to eliminate his own bone marrow before infusing his sister's bone marrow. During chemotherapy, he was very affected with his hair loss, a typical side effect from chemotherapy. To encourage him to persevere with his treatment, his father also shaved off his hair.

In the course of treatment, Dr Lee found out that Abdulhameed was addicted to painkillers and wanted to help him kick the habit. "I agreed with Dr Lee and wanted to put a stop to Abdulhameed's addiction. Initially, he was upset and threw tantrums when he didn't get his regular dose of painkillers. But we persevered and successfully helped him kick the habit," shares Madam Sogra.

On 25 February, Dr Lee carried out the stem cell transplant on Abdulhameed at Mount Elizabeth Hospital, which is the flagship hospital of ParkwayHealth. The transplant was a success as Abdulhameed did not develop any major complications and has completely taken up the marrow graft from his donor. He remains in remission and the blood cells that are currently circulating in his marrow and blood stream are tested 100 percent of donor origin.

Madam Sogra is so happy that she has proclaimed a new birth date for Abdulhameed - 2 April 2009. It was the day when they received the result of the full engraftment of bone marrow. Abdulhameed knew the pain his sister had gone through while harvesting the stem cell. He shyly shares that he is indebted to her for life. When asked if there's anything that he would like to do immediately, he excitedly says, "I want to go back to school to study medicine so that I can become a doctor and help other sick children."

Abdulhameed and his family are very happy with the treatment outcome. To them, it is light at the end of the tunnel. "Finally, my boy can live a normal life just like any other child," Madam Sogra shares in great relief.

She stresses, "There is hope for a cure in every sick child, as long as we (as parents) prevail on our part. My Abdulhameed is fine and chirpy now, but I know the pain and suffering he has gone through. I am very grateful to Dr Lee for giving us this alternative treatment option and my family owes it to him and everyone at Mount Elizabeth Hospital for giving him a new lease of life."

According to Dr Lee, the treatment success rate for children with sickle cell anaemia is about 80 to 90 percent. However, there is a risk that one in 10 patients may die from complications during or after the transplant.

When treating young patients who are undergoing stem cell transplantation, Dr Lee adds that working closely with the parents enables the best clinical care to be delivered. Dr Lee advocates that besides good clinical care, parents play a key role in nursing and giving the best care for their children.

"Sore mouth and throat, abdominal pain, diarrhoea, fever and infections are common complications that patients experience during treatment," says Dr Lee. While the medical team manages the side effects of the drugs to ensure smooth treatment process, he adds that parents' moral support for the child is critical.

Abdulhameed returned to Bahrain in end April 2009 where he will continue with his routine checks in his home country.

Thalassaemia and Sickle Cell Anaemia

Thalassaemia and sickle cell anaemia are genetic diseases that affect the red blood cells. The gene that goes wrong in both conditions is actually the same gene called beta globin gene, but the mutations are different. Diseases of the beta globin gene are indeed the commonest genetic diseases in the world. Although conventional treatments like blood transfusion can effectively prolong survival, patients with thalassaemia and sickle cell anaemia often suffer from the complications of blood transfusion and many die young as a result. Haematopoietic stem cell transplantation offers a cure for many patients and has transformed their lives like Abdulhameed where he was given a new lease of life.

Sickle cell anaemia, is an inherited life-long blood disorder where there aren't enough healthy red blood cells to carry enough oxygen throughout the body. It occurs because of a mutation in the haemoglobin gene. People who have the disease are born with it. They inherit two copies of the sickle cell gene - one from each parent.

In sickle cell anaemia, the body produces sickled-shaped red blood cells (red blood cells shaped like a 'C') instead of the normal disc-shaped red blood cells. These sickled cells are rigid and sticky, and can get stuck in small blood vessels which either slow or block blood flow and oxygen to parts of the body. The life-span of these sickled cells is very short, about 10 to 20 days as compared to normal red blood cells which last about 120 days in the bloodstream. Hence, the bone marrow cannot make new red blood cells fast enough to replace the dying ones, resulting in a lower-than-normal number of red blood cells. Sickle cell anaemia can lead to a host of complications, including infections, delayed growth and puberty in children, stroke, acute chest syndrome, pulmonary hypertension, organ damage, blindness, skin ulcers, gallstones and priapism.

The sickle cell gene is particularly common among people with African, Spanish, Mediterranean, Middle Eastern and Indian ancestry.



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