

Happy once again...

As she stepped outside, the sunshine made Laila squint, and she had to use her hands to block the light. Her tiny hands now felt rugged and bristly against her face. She could feel the dried up tears on her cheeks and remembered that she had been crying the whole night.

She did not like the sunshine. She was accustomed to just sitting in one corner of the building where she lived with other wretched people like herself. She liked the dark corners of the rooms and not light, just like the darkness in her heart. The twinkling sparkle in her eyes had been long gone since the day she had lost her father, her only family.

Laila was out playing with friends when she heard it — a deafening sound like the most dreadful thunder. It came from where she lived. As she ran and reached her house, she felt she had stepped into a completely different place. The neighbourhood where she had lived for nine years had been turned into nothing

but rubble and debris.

The daily exchange of greetings among her neighbours had turned into desperate screams for help. Instead of smelling freshly baked potatoes and braised meat, she smelled gas and fire. All around her, she saw blood. Laila's whole body became numb. She forgot that she had legs. She was suffocating, yet she just stood there.

Then her gaze fell on something. Two eyes that were staring blankly at her. Two eyes she knew so well because she had the same eyes. They kept staring at her and she just stared back.

Laila never mourned her father loudly. After the incident she was taken to a building with other survivors. She did not speak a word for the first few weeks. She just did what she had to — eat the food given to her and just look at the others — some injured, some traumatised, some crying loudly and some praying. She hated the sound of babies crying and the sight of children her age playing with one another.

She pitied them.

Many of the elder people regularly listened to the radio which was always discussing alien topics — attack on Syria (her country), refugees crossing the Mediterranean, clashes between governments and jihadist groups, ISIS etc., she did not understand a word of it. Did she have to, she wondered. She did not understand her own existence. She had been scarred for life.

As Laila walked in the sunshine, she looked at the streets where flowers once bloomed and children played merrily. But now, there were very few people outside. Their countenances were all the same — a look of fear and uncertainty.

Then Laila heard a sound- like a twinkling? No, a whistle. And then a giant roar. Behind her, a flash of light.

The ground lurched beneath her feet. Something hot and powerful slammed into her from behind. It knocked her out of her sandals and lifted her up, and then,

she was flying, twisting and rotating in air. Then Laila struck a wall and crashed to the ground. She could feel excruciating pain all over her body; it even hurt to breathe. Then she faded into darkness.

She heard a voice calling out to her by her name, and after some time, she could see someone. She immediately recognised the short curly hair, the round face and the sharp nose-bridge. It was her dad!

He was smiling warmly and gesturing her to follow him. His smile gave Laila the warmth she had been yearning for the last two years. She started following him and slowly the pain started to diminish. She could feel that she was smiling for the first time since that fateful day.

As they walked together, Laila felt that she was leaving behind the desolate and meaningless life she was living. She was once again with her father, and she needed nothing more. She was happy, once again.

By Faiza Khondokar

Transplanting blood stem cells Haematopoietic Stem Cell Transplantation (HSCT)

FROM PAGE 4

HOW ARE HAEMATPOIETIC STEM CELLS OBTAINED FOR TRANSPLANT?

There are two ways to obtain HSC.

The more common way is to collect them from the blood stream, or "peripheral blood stem cell harvesting." In this procedure, blood is drawn from one arm, which then goes through a machine that filters out stem cells and white blood cells. The remaining blood is returned in the other arm to form a "circuit."

The second way is to extract HSC directly from large bones, usually the pelvis, and usually under general anaesthesia. This is called bone marrow harvesting and is much less commonly performed nowadays.

Another type of HSC source is cord blood cells that are used in umbilical cord blood transplants. This is collected from a baby's umbilical cord immediately following birth, before the placenta is delivered. These cells are then frozen for later use. Cord blood collection does not carry any risk or pain to the mother or child, whether it is done after vaginal or caesarean deliveries.

WHO IS A COMPATIBLE DONOR?

Matching of the HLA system type is the most important way to determine whether the patient's and donor's immune system are compatible.

Accurate determination of immune system compatibility is vital to minimise graft failure and lethal attack from donor cells



against recipient's normal tissues (graft-versus-host disease or GvHD).

The best donor is a full "10/10" — matched sibling donor followed by a fully-matched unrelated donor (URD).

The chance of a sibling of same parentage as the recipient being fully matched is 25 percent.

For patients who are unable to find a

suitably-matched sibling or unrelated donor, umbilical cord blood that is available as an "off the shelf" source of frozen HSC can be used.

WHAT IS THE TRANSPLANT PROCEDURE?

Patients will need an adequate fitness level to be ready for the procedure. In the case of allogeneic transplant, the patient's donor will also have to undergo an assessment.

Patients are given various medications to help reduce the risk of bacterial, viral, and fungal infection when they undergo conditioning therapy. After conditioning therapy, stem cells are infused into the bloodstream (usually between 30 and 60 minutes), akin to a blood transfusion procedure.

In allogeneic transplantation, patients will also be given medication to reduce the chance of graft rejection and GvHD.

After infusion, HSC will home in on the bone marrow and start growing. This usual-

ly takes about 10 to 14 days for peripheral blood stem cell transplants.

WHAT ARE THE OUTCOMES?

Outcomes of HSCT have improved over the years. Major barriers to long-term survival that remain include late-onset GvHD and disease relapse.

To this end, strategies to manipulate stem cells in order to shift the balance in favour of tumour — killing as well as the engineering of immune cells that preferentially kill blood cancer cells have been developed and are slowly becoming more mainstream.

SIDE EFFECTS AND COMPLICATIONS

Side effects and complications can happen with any type of treatment and every patient may experience them differently. For stem cell transplant patients, side effects can happen after the procedure or as a result of the conditioning treatment itself. Here are some possible side effects —

- Infections
- Bleeding
- Low blood count
- Nausea and vomiting
- Diarrhoea
- Loss of appetite
- Sores in the mouth leading to pain on swallowing
- Nerve and muscle problems
- Graft rejection
- Graft-versus-host disease or GvHD
- Infertility
- Second cancers

The above list is not exhaustive. A thorough discussion with your physician should be done before the transplant.

Photo courtesy: Parkway Hospitals Singapore