This is a story of a primary school teacher. Her name was Mrs. Shelley. As she stood in front of her 5th grade class on the very first day of school, she looked at her students and said that she loved them all the same. As the days passed, Mrs. Shelley watched Teddy throughout the first few months and noticed that he didn't play well with the other children, that his clothes were messy and that he constantly needed a bath. And, Teddy appeared unpleasant. It got to the point where Mrs. Shelley actually took delight in marking his papers with a broad red pen, making bold X's and then putting a big "F" at the top of his papers.

Since it was last session of primary school, Mrs. Shelley was required to review each child's past records. When she reviewed his file, she was in for a surprise. Teddy's first grade teacher had written, "Teddy is a bright child with a ready laugh. He does his work neatly and has good manners...he is a joy to be around. His second grade teacher wrote, "Teddy is an excellent student, well liked by his classmates, but he is troubled because his mother has a terminal cancer and life at home must be a struggle."His third grade teacher wrote, "His mother's death has been hard on him. He tries to do his best but his father doesn't show much interest and his home life will soon affect him if some steps aren't taken."Teddy's fourth grade teacher wrote. "Teddy is withdrawn and doesn't show much interest in school. He doesn't have many friends and sometimes sleeps in class." By now, Mrs. Shelley realized the problem and she was ashamed of herself. She felt even worse when her students brought her Christmas presents, wrapped in beautiful papers and tied with pretty ribbons, except for Teddy's. His gift was clumsily wrapped in heavy brown paper.

Mrs. Shelley took pains to open it in the middle of the other presents. Some of the children started to laugh when she found a bracelet with some of the stones missing, and a bottle that was one quarter full of perfume. But she stifled the children's laughter when she exclaimed how pretty the bracelet was, putting it on, and dabbing some of the perfume on her wrist. Teddy stayed after school that day just long enough to say, "Madam, today you smelled just like my mom used to." After the children left she cried for at least an hour. Mrs. Shelly paid particular attention to Teddy from that day onwards.

As she worked with him, his mind seemed to come alive. The more she encouraged him, the faster he responded. By the end of the year, Teddy had become one of the smartest children in the class and became one of her "teacher's pets." A year later, she found a note under her door from Teddy, telling her that she was the best teacher he ever had in his whole life. Six years went by before she got another note from Teddy. He then wrote that he had finished high school, first in his class, and she was still the best teacher he ever had in his whole life. Eight more years passed and yet another letter came. This time he explained that he got his medical degree. He wrote that she was still the best and favorite teacher he ever had. But now his name was a little longer - the letter was signed, Theodore F. Ted, MD.

The story doesn't end there. There was yet another letter that spring. Teddy said he'd met a girl and was going to marry her. He explained that his father had died a couple of years ago and he was wondering if Mrs. Shelly might agree to sit in the place at the wedding that was usually reserved for the parents of the groom. Mrs. Shelly agreed. And guess what? She wore that bracelet, the one with several stones missing and applied the same perfume. They hugged each other, and Dr. Ted whispered in Mrs. Shelly's ear, "Thank you Madam for believing in me. Thank you so much for making me feel important and showing me that I could make a difference."

Mrs. Shelly with tears in her eyes, whispered back. She said, "Teddy, you have it all wrong. You were the one who taught me that I could make a difference. I didn't know how to teach until I met you."
**Relapsed Diffuse Large B Cell Lymphoma & Autologous stem cell Transplant**

Relapsed lymphoma refers to the recurrence of the lymphoma after patient has achieved complete remission (CR) or partial remission (PR) after front line therapy. An average of 70% of patients with B cell lymphomas of aggressive histologic types like diffuse large B cell lymphoma (DLBCL) can be cured using front line therapy with R-CHOP. The remaining 30% will either be refractory to front line treatment (around 15%) or relapsed (around 15%). Primary refractory disease is defined as failure to achieve at least a PR with front line therapy. Early relapse is usually defined as relapse in the year after diagnosis or the 6 months after the end of treatment. Late relapsing patients are characterized by a better response to salvage chemotherapy along with longer PFS and OS than those with refractory disease or early relapse.

Since the publication of the PARMA study, which showed in relapsed NHL, at five years, the overall survival was 53% in the transplantation group and 32% in the conventional-treatment group (P = 0.038), second-line salvage therapy followed by high-dose chemotherapy and autologous stem cell transplantation (ASCT) became and continues to be the standard of care for chemo sensitive relapsed diffuse large B-cell lymphoma (DLBCL), even in the rituximab era.

Early relapses are associated with the same dismal outcome as refractoriness, and thus patients should be treated as refractory lymphoma. Treatment of the relapsed lymphoma consists of 2-3 cycles of salvage chemotherapy followed by autologous transplant (ASCT) if patient is transplant eligible. Best salvage regimen for relapsed/refractory DLBCL before autologous transplant is not known. Salvage regimen consist of regimens like R-DHAP, R-ICE, R-GDP, R-MIME. In the original analysis of CORAL study, no difference in outcome was found between R-DHAP and R-ICE.

However, in the retrospective analysis, which classified the patients according to the cell of origin using GEP, the 3-year PFS was 100% for ABC type DLBCL treated with R-DHAP, and the 3 year PFS for GCB-like DLBCL treated with R-ICE was 27% (p=0.01). Those with ABC type DLBCL had a different outcome; the 3 year PFS rate was 60% for R-ICE and 30% for R-DHAP. If patient is not transplant eligible then patient is treated with few more cycles of same salvage regimen followed by lenalidomide maintenance. If available & affordable, btk inhibitor like ibrutinib, anti PD-1 antibodies nivolumab or pembrolizumb can also be used.

Patient may not be transplant ineligible for various reasons. Old age though in its own is not the contraindication for transplant. If patient is fit and healthy, then autologous transplant may be offered to as old as 70 years. To predict the non relapsed mortality during transplant, HSCT-CI (hematopoietic stem cell transplant co morbidity index) has been developed. The HCT-CI is able to classify patients into three risk groups: low risk (non-relapse mortality 14% at 2-years), intermediate risk (non-relapse mortality 21% at 2-years) and high risk (non-relapse mortality 41% at 2 years).

Patient is not transplant eligible if they are completely refractory to any type of primary chemotherapy and salvage chemotherapy because transplant is likely not to be beneficial at all in this patient group. Other reason for transplant ineligibility is that the inability to harvest adequate stem cell due to poor health of patient or previous use of stem cell toxic chemotherapy. Other known prognostic factors relevant to the salvage setting include the IPI, originally intended for use with front line therapy but also effective in cases of relapsed DLBCL. Another predictive factor linked to outcome is previous exposure to rituximab as a part of frontline therapy. In the phase III randomized CORAL trial of relapsed or refractory DLBCL, the 3 year event-free survival was significantly lower for patients with previous exposure to Rituximab compared with those who had never received Rituximab. Salvage regimens with acceptable toxicity are necessary because patients with relapse after ASCT have an impaired bone marrow reserve and other patients are elderly and frail. Therefore the search for novel, more effective, and safer salvage combinations is not only opportune but also represents an important unfulfilled need.

The curative potential of ASCT is derived from high-dose chemotherapy or chemo radiotherapy administered as transplant conditioning to enhance tumor cell kill and overcome drug resistance. For patients with relapsed or refractory DLBCL that responds to second line chemotherapy, high dose chemotherapy followed by ASCT results in superior survival rates than chemotherapy alone. Patients with chemotherapy-sensitive relapse, or who have or who have chemotherapy –sensitive disease but have never achieved complete remission have a 30-60% probability of disease free survival at three to five years. In comparisons, patients with DLBCL resistant to second-line chemotherapy have a DFS of <1 year.

There is not yet ideal conditioning regimen for autologous transplant. Examples of conditioning regimen include - BEAM, LACE, Cy/TBI, Bu/Cy/VP, BEP, CBV, CyVP TBI. Because of the concerns of myelodysplasia and secondary leukemia, most transplant centers and groups have moved away from TBI-containing approaches and have concentrated on chemotherapy-based regimens.

Infections although minimal remain a concern during per transplant period. It is furthermore complicated by co morbidities, mucositis, decreased immunity of the patient. In era of multidrug resistant bugs, a need of calculated approach to infections is the need of hour.

Patients tolerate these regimens quite well and engraftment is prompt and similar among these combinations. Different studies have quoted ASCT resulting in complete remissions in the 60–85% range while at 2–5 years after ASCT have resulted in 34–60% DFS & 26–46% OS rates. These drug regimens differ in the potential toxicity with a treatment-related mortality ranging from 3.8 to 17%.

Patients who undergo autologous SCT should be followed longitudinally for relapse and treatment related toxicities. Most relapses occur during the first two years post-HCT and non-relapse mortality surpasses relapse as the main cause of death beginning approximately eight years post ASCT.

In our institute we have been doing autologous stem cell transplant for relapsed lymphoma with comparable outcomes. Totally, we have done 85 autologous stem cell transplant for relapsed lymphoma patients since 2012. The estimated 3-year EFS for patients who were transplanted in CR1 and >CR1 were 76% and 57% respectively (p-value=0.736). While the estimated 3-year OS for patients who were transplanted in CR1 (82.6%) was found to be greater than those transplanted in >CR1.

We highly recommend high dose therapy followed by autologous stem cell transplant for every eligible patient as it may lead to potential cure of the disease.

**Dr. Pragya Bhandari, MD**

**Dr. Rayaz Ahmed, Consultant - Hematology**
International Surgery Conference

RGCIRC participated in International Surgery Conference held on 25th October - 26th October 2017 at Toronto, Canada. Dr. Shagun Bhatia Shah, Consultant - Anaesthesiology, delivered a scientific lecture on Robotic Surgery: Patient Positioning Ergonomics. Hers was amongst the three papers selected from Anaesthesiology in this conference.

RGCIRC Features in New York

RGCIRC featured prominently during the "World Congress on Radiology and Oncology" which was held during October at Hilton, New York, USA. The first logo in the backdrop of the conference is that of our institute. Dr. Arvind K. Chaturvedi, Chair - Radiology and our former Medical Director delivered the key note address at the inauguration of this conference.

Theme: Adult and Pediatric Hemato Oncology Nursing: From Hope to Cure

With great pride and honor, The Department of Nursing at RGCIRC organized 5th Annual Nursing Conference “NURSICON 2017 on Saturday, 11th November 2017 at Hotel Crowne Plaza, Rohini, Delhi. The theme of the conference was “Adult and Pediatric Hemato Oncology Nursing: From Hope to Cure”.

The conference began with an overview regarding the event by Ms. Kathleen Glenda Jacobs, Chief of Nursing. Lamp lighting was done by Dr. Girdhar J. Gyani (Chief Guest), Dr. Daisy Thomas (Guest of Honor), Mr. D. S. Negi (Chief Executive Officer), Dr. D. C. Doval (Director – Medical Oncology), Dr. Gauri Kapoor (Medical Director – RGCIRC, Niti Bagh and Director – Pediatric Hematology Oncology), Dr. Sunil Khetarpal (Chief Operating Officer cum Medical Superintendent) Ms. Kathleen Glenda Jacobs and Ms. Victoria Massey (Deputy Nursing Superintendent).

The event brought together more than 300 delegates from different health care organizations in Delhi NCR. The conference continued with poster presentations and interactive sessions by experienced delegates regarding Pediatric and Adult Hemato Cancers, Complication Management, Bone Marrow Transplant, Infection Control and Role of Nurses in Hemato oncology. The skit on infection control was enjoyed and highly appreciated by the delegates and faculty. The event concluded with a vote of thanks by Ms. Kathleen Glenda Jacobs.

AOGD Pre - Congress Gynae Oncosurgery Video Workshop

The Department of Uro-Gynae Surgical Oncology of RGCIRC organized AOGD Pre-Congress Gynae Oncosurgery Video Workshop on Friday, 17th November 2017 at Hotel Crowne Plaza, Rohini, Delhi. Dr. Rupinder Sekhon, Sr. Consultant and Chief of Gynae Surgical Oncology, delivered the opening remarks. The conference had scientific sessions on Anatomy and Surgical Spaces, Radical Surgery for Cervical Cancer, Sentinel Lymphnode - Current Controversy, Ovary and Its Challenges, The Robot, Vulva & Vagina and Fertility Sparing Surgery along with a panel discussion on Recurrent Ovarian Carcinoma. Various gynecologists from across the country participated in the conference.
Celebrating Life 2017

The Department of Pediatric Hematology Oncology of RGCIRC organized a childhood cancer survivorship program “Celebrating Life 2017” on Saturday, 18th November 2017 at Hotel Crowne Plaza, Rohini, Delhi with its focus on raising awareness among the childhood cancer survivors about ways to stay healthy after beating it. The event was marked with an introductory note on “Staying Healthy after Childhood Cancer” by Dr. Sandeep Jain, Consultant - Pediatric Hematology Oncology.

The get together was designed with the intent of bringing the survivors together and giving them an opportunity to share and connect with those who have been through the same experience, as also to increase awareness. This created an environment of trust and support for the children who have survived this disease and their family.

The event was marked with a series of dance performances by children, a career counseling session, life skills session by a professional, and a musical performance. The survivors and their families received knowledge and information in an environment of fun and relaxation in stalls that offered Body & Nail Art, Tattoos, Selfie Clicking and a Career Counseling Desk to help them explore options for a bright future. The cultural program ended with an exhilarating fashion show where the participating children and young adults walked the ramp with fervor and confidence; defying all odds. At the end closing remarks and vote of thanks were delivered by Dr. Gauri Kapoor, Medical Director - RGCIRC, Niti Bagh and Director - Pediatric Hematology Oncology.

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