

Newsletter

Issue: June 2022 | Vol. XXVI | No. 6 | Price: 50 Paisa

GUEST EDITORIAL

PEDIATRIC ONCOLOGY: PAST, PRESENT AND FUTURE

Each of us needs to realize the enormity of the debt we owe to the past, so that we can be proud of who we are in the present and can work for a better life for our children who are yet to come ~Maya Angelou

Though pediatric cancers account for a small proportion of all cancers, their psycho-social impact is much greater. Compared to adult cancers, the disruption to family life and functioning is usually felt more for children wherein it often evokes greater sympathy as well. In the 1970's, the advent of combination therapies brought about specialized care for patients with differing needs and increased survival of children with cancer. Prior to that time caring for a child with cancer was usually of short duration and focused on helping the child and family face the inevitable death. Since 1973, and with the NCI driven co-operative group trials in the US, there has been a steady increase in the five year survival rate. With modern treatment childhood cancers have cure rates of more than 80% in the developed world. Globally, these achievements are not as significant because 80% of the world's children live in low- middle-income countries, where cure rates range from 20-40%.

Pediatric oncology as a specialty was virtually non-existent in the early 1980s in India. Most children were treated, often unsuccessfully, by adult oncologists in a few cancer centers or by self-trained pediatricians in medical colleges. There was lack of good quality pediatric cancer units (PCU) and multidisciplinary or protocol based care. There were only a handful of pediatric oncologists, who were usually trained abroad. The first dedicated pediatric cancer unit was started in Tata Memorial Hospital in 1985. In a nationwide survey of pediatric oncology services in 1988, 50% of cancer centers had adult oncologists treating children, only 10% had trained pediatric oncologists, and less than 15% had dedicated beds for pediatric patients or facilities for platelet transfusion. In the non-government sector, Rajiv Gandhi Cancer Institute and Research Centre lead the way in establishing the first private dedicated pediatric oncology unit in the country in 1998. Today it boasts of one of the best state-of the art comprehensive childhood cancer facilities at par with its western counterparts.

While advancements in chemotherapy, radiotherapy, organ and limb preserving surgeries have had a remarkable impact on the overall survival of children afflicted with cancer over the past few decades, pediatric malignancies continue to be a leading cause of death by disease in people younger than 20 years of age. In addition, many patients that survive into adolescence and beyond often do so with a host of debilitating treatment-related side effects that can permanently impact their quality of life.

Immunotherapies are an emerging form of treatment that are designed to help the patient's immune system eradicate cancerous cells while mitigating many of the unfortunate sequelae associated with conventional therapies. Numerous forms of immunotherapy have shown promising results in adult malignancies, paving the way for their implementation against various types of childhood cancers. The landscape of pediatric cancer has seen a dramatic shift in the past few years with the evolving role of immunotherapy. Tremendous efforts have been made in defining the genetic landscape of childhood cancers and this has fuelled initiatives to develop pediatric cancer-specific therapies and to provide guidance and direction for precision medicine treatment of individual patients. "Future match-making", is a recent term coined for this process.

Hence the future of pediatric oncology will be influenced by changes in drug design and treatment strategy, with genomic medicine and molecular-based diagnostics and therapeutics playing increasingly important roles. Incorporating these techniques into new response-directed treatment algorithms will be crucial as personalized medicine and molecular-targeted, tumor-specific therapies gain acceptance for the treatment of children with cancer.

It is our responsibility to ensure that all children and adolescents with cancer benefit equally from this progress. Indeed, studies have documented disturbing racial/ethnic disparities in cancer incidence and survival rates. And, unfortunately, our youngest are not shielded from this harsh reality. In September 2018 WHO announced a new effort –the WHO Global Initiative on Childhood Cancer– with the aim of reaching at least a 60% survival rate for children with cancer by 2030, thereby saving an additional one million lives. India is committed to this initiative. This new target represents a doubling of the global cure rate for children with cancer. Hence we need accurate registration of childhood cancer cases and studies that allow us to better understand the relative contribution of the factors that cause disparities, as well as finding ways to help remedy disparities at the institutional and community level. It also means supporting research to identify biological factors that contribute to disparities.



Dr Gauri Kapoor MD, PhD (Guest Editor)

Director - Pediatric Hematology, Oncology & BMT
Medical Director, Rajiv Gandhi Cancer Institute and
Research Centre, Niti Bagh, South Delhi

ADVANCES IN PEDIATRIC ONCOLOGY

Introduction

Outcome of childhood cancer has improved significantly in the past two decades. In developed countries, it has reached to the tune of 70-90% in most of the diseases. Though steady progress has been achieved in India as well, still we are far behind from what has been witnessed in the west. Therefore, it is crucial for us to analyse the past, evaluate the current scenario and devise strategies for future so as to achieve desirable goals in long-term. For the sake of clarity and better understanding, we have discussed these aspects of Pediatric- Oncology in four domains: diagnostics, therapeutics, research, education and services.

Diagnostics

Historically, clinicians were reliant on conventional cytology, histology and radiological studies for diagnosis of cancer. Though even today these are still very important tools, in addition we have plethora of other new tests which may help in confirmation of diagnosis in difficult cases. Detection of certain pathogenic genetic alteration by FISH/ PCR in cases where morphology and immunohistochemistry is inconclusive is one such example. Application of flow cytometry in diagnosis and response assessment has revolutionized management of acute leukemia in children and adolescents. Another important addition in diagnostic armamentarium has been inclusion of functional imaging like PET-Scan for staging and response assessment. Application of these modalities has helped us to escalate/deescalate treatment of certain subset of patients and thus has paved way for personalized treatment. Another major advancement has been incorporation of next generation sequences (NGS) which has provided overwhelming genomic information pertaining to childhood cancers. This information has revealed an unprecedented view of the tumor genome, thus enabling clinicians to identify certain bad players for whom treatment can be modified. Furthermore, newer molecular technique platforms perform massively parallel sequencing, during which millions of fragments of DNA from a single sample are sequenced in unison. Massively parallel sequencing technology facilitates high-throughput sequencing, which allows an entire genome to be sequenced in less than one day. This information may be used for functional and therapeutic genomics in future.

Therapeutics

When we talk about treating children with cancer, it is not just a matter of improving the survival rate but it is about ensuring a qualitative leap, improving the quality of life for patients and survivors and reducing the sequelae of the disease and its treatment. Major modalities of treatment include systemic chemotherapy, surgery, radiotherapy and stem cell transplant. The introduction of chemotherapy, in the middle of the last century, ushered in an era of improvement in the prognosis of malignant diseases in children. Since then many new drugs have been introduced and with experience we have learnt how to optimize use of these drugs effectively. With the better understanding of biology of the disease, newer targeted therapy and immunotherapy has given promising hope to many patients who otherwise were deemed incurable. Imatinib and other TKI for CML, blinatumomab and inotuzumab for ALL, brentuximab and nivolumab for HL are some of such examples. More recently the possibility of engineering T lymphocytes to produce a chimeric receptor (chimeric antigen receptor [CAR]) for an antigen expressed by tumour cells and thereby provoking a cellular immune response, killing tumour

cells, has opened up a new therapeutic strategy for diseases considered resistant to conventional treatments. Another area where things have rapidly changed in last one decade is success of haploidentical stem cell transplant. Feasibility and its success has opened an option for those who deserve allogeneic BMT and do not have a match related or an unrelated donor. In addition, advances in newer techniques of radiotherapy delivery and proton therapy has increased the precision of radiation delivery and thus increasing the effectiveness while keeping late effects in check.

Research

A major contributor to the success of childhood cancer can be attributed to well designed systematic cooperative trials from Europe and North America. Participation in clinical trials not only improves the outcome of patient, but also provides important insight about various aspects of disease which may be targeted in subsequent studies. The clinical research landscape outside of these large and well-established groups is almost non-existent. In India, the Indian Pediatric Oncology Group (InPOG) was founded in 2008 to create a platform for multicentric cooperative group research. After several years of building clinical trial infrastructure, InPOG started recruiting pediatric patients for its first collaborative trial in 2015. Few clinical multicentric collaborative studies are going on yet it has a long way to go before it makes a meaningful and lasting impact. The interfaces between large consortia and smaller regional or national clinical trial groups must be customized to account for a variety of organizational structures and the particular logistical realities and local research priorities of the countries.

Education and services

There was no formal structured fellowship program in Pediatric Haematology–Oncology until 2008. However, since then many institutes are offering 2-3 year training program in this subspecialty accredited by Medical council of India, National board of examination and Indian academy of Pediatrics. With time we have now sizeable number of trained Pediatric oncologist from these institutes and abroad. Also, in last two decades, we have witnessed a rapid rise in dedicated Pediatric Oncology and BMT units. Though these numbers are quite insufficient compared to what is required, still it's a welcome change.

In conclusion, we have learnt from the west that Pediatric oncology is the prime example of how bench to bedside – research can bring about positive changes in lives of children with cancer. This model is essential to strengthen Pediatric Oncology in India. A concrete, collaborative and multidimensional effort from all stakeholders is essential to achieve international standards. Though many challenges remain, promising initial results provide hope that the future will bring personalized, less toxic, curative treatments to all children with cancer.

Dr. Sandeep Jain, DNB, FIAP

Sr. Consultant - Pediatric Hematology - Oncology & BMT
Rajiv Gandhi Cancer Institute and Research Centre, Delhi

THE CONCEPT OF “RESPITE CARE” IN PALLIATIVE MEDICINE

Palliative care follows a patient-centric approach to treatment which is largely possible because of the unwavering support offered to the team by the patient’s family and friends. Terminal illness during progressive disease tends to take a toll not only on the patients physical health but adds a physiological and financial burden that trickles down to the entire family. While prioritizing the patient, carers often end up neglecting their own needs eventually ending up exhausted, drained, frustrated and depressed. They begin to seek a time “away from illness” and may begin to harbour feelings of resentment towards the patient leading to patient neglect and deterioration.

In such a scenario, “Respite Care” offers temporary relief to the carers for hours, days or weeks at a time depending on the requirement of the family. It can be offered in a wide range of locations such as a day care facility, inpatient care or even at home. It is financially less taxing as compared to a hospital based admission. It aims to give the carers time to recoup and rejuvenate. It could be simple activities sparking a sense of normalcy in their lives such as time for a movie, a game of golf or even a full night of undisturbed sleep. Activities understood as trivial by some, start holding relevance when seen through the eyes of someone devoting all their time to taking care of a loved one.

In simple terms, “Respite Care” is an integral part of Palliative Care which is given when someone else takes care of the patient instead of the primary caregivers so that the carers can have a break for themselves. This break gives them time to have some quality time for their daily activities and just relax in a sickness free time to overcome their own stress.

Dr. Naina Kumar, Attending Consultant

Dr. Sunny Malik, Consultant In-Charge

Department of Anaesthesia, Pain and Palliative Medicine, RGCIRC, Niti Bagh, Delhi

INTERNATIONAL YOGA DAY 2022



Yoga is not just bending and twisting your body but it is much more than a set of exercises. Yoga means union of mind and body together for being in perfect alignment and complete sync with the existence.

On this occasion, Dr. Mini Mehta, Alternative Therapist, RGCIRC delivered awareness lecture on **Importance of Yoga in Our Life**.

With yoga, not only your body becomes flexible. Your mind and emotions and above all, your consciousness becomes flexible. Yoga is the systematic way of upgrading, activating and refining energies for the highest possibilities.

CME WITH IMA MORADABAD



RGCIRC organized a CME in association with IMA Moradabad on Saturday, 18th June 2022 at The Grand Village, Moradabad, UP.

Following lectures were delivered.

- 1. Approach to Breast Lump** by Dr. Manish Sharma, Consultant – Medical Oncology, RGCIRC, Niti Bagh
- 2. Breast Conservation Surgery: What’s New** by Dr. Leena Dadhwal, Consultant – Surgical Oncology, RGCIRC, Niti Bagh
- 3. How Not to Miss Childhood Cancer: Important Role of General Practitioner** by Dr. Payal Malhotra, Consultant - Pediatric Oncology, RGCIRC, Rohini

ACADEMIC LECTURE SERIES OF RGCIRC



RGCIRC organized academic lecture on Wednesday, 22nd June 2022 at Indraprastha Hall, RGCIRC, Rohini, Delhi. Dr. Purvish M. Parikh, Chief Advisor - Mumbai Oncocare Clinics, Mumbai delivered a lecture on **Implications of NMC RMP Guidelines**. The lecture was attended by more than 150 staff members of RGCIRC including Chair, Directors, Sr. Consultants, Consultants, Attending Consultants, Resident Doctors, Staff Nurses etc.

Date of Printing: 24th June 2022

Date of Publishing: 30th June 2022

Posted at: Ashok Vihar, Head Post Office, Delhi - 110052

Register with Registrar of Newspaper Under No.68797/1998

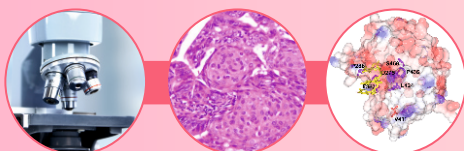
Postal Department Registration No. DL(N)/004/2021-23

Licensed to Post without Prepayment Under No.: "U"(DN)-162/2022-23



Rajiv Gandhi Cancer Institute
and Research Centre

CME on Gynae Oncopathology 2022



Diagnosing and Treating Gynaecological Cancers "The Way Forward"

SAVE THE DATE

Saturday, 9th July 2022 | Venue - Indraprastha Hall, RGCIRC, Rohini, Delhi

Topics

- Borderline tumours of the ovary
- Newer perspective in carcinoma cervix
- Molecular classification of endometrial carcinomas
- Role of chemotherapy in ovarian and endometrial malignancies
- Surgical implications in carcinoma endometrium and cervix
- Role of radiotherapy in carcinoma cervix

For more details: mail at Gynaconcopath2022@gmail.com

Organizing Committee

Organizing Chairman



Dr. Anurag Mehta

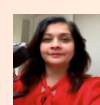
Director - Dept. of Laboratory & Transfusion Services and Director Research
Rajiv Gandhi Cancer Institute and Research Centre (RGCIRC), Delhi, India

Program Conveners



Dr. Gurudutt Gupta

Sr. Consultant & Head
Dept. of Histopathology
RGCIRC, Delhi, India



Dr. Rupali Arora

Lead Consultant Gynaecological
Pathologist - Department of Cellular
Pathology, University College London
NHS Trust, London, U.K

Organizing Secretaries



Dr. Anila Sharma

Sr. Consultant
Dept. of Histopathology
RGCIRC, Delhi, India



Dr. Meenakshi Kamboj

Consultant
Dept. of Histopathology
RGCIRC, Delhi, India

Mr. D. S. Negi (CEO)
Dr. S. K. Rawal
(Medical Director)
Dr. A. K. Chaturvedi
Dr. D. C. Doval
Dr. Gauri Kapoor
Dr. Anurag Mehta
Dr. Rajiv Chawla
Dr. Sunil Kumar Puri
Dr. P. S. Chaudhury
Dr. Vineet Talwar
Dr. Munish Gairola
Dr. Dinesh Bhurani
Dr. I. C. Premsagar
Dr. Rupinder Sekhon
Dr. Shivendra Singh
Dr. Rajeev Kumar
Dr. Ullas Batra
Dr. Sumit Goyal
Dr. Rajan Arora
Dr. R. S. Jaggi
Dr. L. M. Darlong
Dr. Kundan Singh Chufal
Dr. Swarupa Mitra
Dr. Mudit Agarwal
Dr. Narendra Agrawal
Dr. Rayaz Ahmed
Dr. Jaskaran Singh Sethi
Dr. Vaishali Zamre
Dr. Himanshu Rohela
Dr. Pinky Yadav



To:

If undelivered please return to:
Rajiv Gandhi Cancer Institute and
Research Centre, D-18, Sector - 5,
Rohini, Delhi - 110085

Printed and Published by Mr. Pramod Maheshwari on behalf of Indraprastha Cancer Society and Research Centre and printed at R. R. Enterprises, 18 - A, Old Gobind Pura Ext., Street No. 2, Parwana Road, Delhi - 110051, Tel: +91- 8447494107, Published from Rajiv Gandhi Cancer Institute and Research Centre, D - 18, Sector - 5, Rohini, Delhi - 110085

Editor: Dr. A. K. Dewan