



Childhood Cancer: Shining a Light on a Silent Battle

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I. Introduction

Childhood cancer is a silent battle that affects not only the child but the entire family. In India, where over 50,000 new childhood cancer cases are diagnosed each year, the prevalence of this devastating disease is a significant concern. This article explores the challenges families face when dealing with childhood cancer, including emotional strain, financial burdens, and the impact on relationships. It also highlights advancements in treatment, the importance of research, the role of psychosocial support, and the significance of early detection.

The Prevalence of Childhood Cancer in India

Childhood cancer, though relatively rare compared to adult cancer, still poses a significant health challenge in India. Studies indicate that 1.6% to 4.8% of all cancer cases in India occur in children below 15 years of age, with an overall incidence rate ranging from 38 to 124 cases per million children per year¹. While this incidence is lower than that in developed countries, it signifies a substantial number of children facing this life-threatening disease.

The Causes of Childhood Cancer

Understanding the causes of childhood cancer is a complex endeavour. Unlike many adult cancers linked to lifestyle factors like smoking or diet, childhood cancer often results from genetic mutations occurring before or shortly after birth. Some forms of childhood cancer, such as acute lymphoblastic leukaemia (ALL), are believed to be associated with genetic predisposition, while others, like neuroblastoma, can be linked to mutations during foetal development. Exposure to environmental factors like radiation or certain chemicals can also increase the risk of childhood cancer, although such cases are relatively rare.

Barriers to Childhood Cancer Diagnosis and Treatment²

Childhood cancer diagnosis and treatment in India face unique challenges. A comparison with high-income countries (HICs) reveals discrepancies in presentation, outcomes, and specific barriers:

- 1. Leukaemia:** Acute lymphoblastic leukaemia (ALL) in India often presents at a later age (6-10 years) with more T-cell immunophenotype and high-risk cytogenetics, leading to a lower overall survival rate (45-81% compared to nearly 90% in HICs). Barriers include delayed recognition of symptoms and limited availability of immunophenotyping expertise.
- 2. Lymphoma:** Hodgkin lymphoma (HL) in India is more often diagnosed at an earlier age (8-10 years) with mixed cellularity histopathology, but the 5-year survival rate is lower (around 90% compared to 98% in HICs). Misdiagnosis of tuberculosis and common steroid use in peripheral healthcare facilities contribute to delayed recognition.
- 3. CNS Tumours:** The incidence of central nervous system (CNS) tumours in India is nearly 50% of that in HICs. Barriers include delayed recognition, missed diagnoses in younger children, and a lack of readily available neuro-imaging and neuro-surgical facilities.

4. **Retinoblastoma:** Late presentation (29-34 months) and a higher proportion of extra-ocular disease contribute to a lower overall survival rate (63-92% compared to up to 95% in HICs). Treatment abandonment is also a significant issue.

5. **Other Solid Tumours:** Neuroblastoma, Wilms' tumour, bone tumours (Osteosarcoma, Ewing's sarcoma), and Rhabdomyosarcoma have relatively higher proportions of advanced/metastatic disease at presentation in India, leading to varied survival rates compared to HICs.

Impact on Families

Childhood cancer is not a battle fought by the child alone; it profoundly affects the entire family. The emotional toll is immense as parents grapple with the anguish of seeing their child suffer. Siblings often experience a mix of fear, confusion, and guilt as they witness their brother or sister endure painful treatments and hospital stays.

Financial strain is another major concern for families dealing with childhood cancer. Medical bills, travel expenses for treatment, and the need for one parent to reduce work hours or even leave their job to care for the sick child can lead to financial hardship.

The emotional and financial burdens can strain marriages and family relationships, further complicating an already difficult situation. Support networks, both within and outside the medical community, play a crucial role in helping families cope with these challenges.

Advancements in Treatment

Despite the grim realities of childhood cancer, there is hope on the horizon. Over the past few decades, significant progress has been made in the treatment of childhood cancer, leading to improved survival rates.

One of the breakthroughs has been the development of targeted therapies. These treatments specifically target cancer cells while sparing healthy ones, reducing traditional chemotherapy's often devastating side effects. Immunotherapy, which harnesses the body's immune system to fight cancer, has also shown promise in the treatment of certain childhood cancers.

Moreover, advances in genomic sequencing have allowed for a deeper understanding of the genetic mutations driving childhood cancer. This knowledge has paved the way for personalized medicine, where treatment plans are tailored to an individual child's unique genetic profile, increasing the chances of success and reducing side effects.

The Role of Research

Research is the driving force behind the progress in childhood cancer treatment. Government agencies, non-profits, and pharmaceutical companies are investing in research to develop and improve new therapies. Clinical trials are crucial in testing the safety and efficacy of these treatments in children.

Funding for childhood cancer research, however, remains a challenge. Childhood cancer receives a disproportionately small share of research funding compared to its impact on young lives. Advocacy groups and passionate individuals are working tirelessly to raise awareness and increase funding for paediatric cancer research.

Psychosocial Support

In addition to medical treatment, psychosocial support is vital for children with cancer and their families. Child life specialists, social workers, and psychologists are integral members of the paediatric oncology care team. They help children cope with cancer's emotional and psychological challenges, guide parents, and create a more positive hospital experience.

Support organizations, such as the Ronald McDonald House Charities and Make-A-Wish Foundation, provide families with a home away from home during treatment and fulfil the dreams of children battling cancer, respectively.

The Importance of Early Detection

Early detection is a key factor in improving the outcomes for childhood cancer patients. Parents should be aware of the common warning signs, including unexplained fevers, persistent headaches, unexplained weight loss, and unusual lumps or bumps. Regular paediatric check-ups and open communication with healthcare providers are essential in catching cancer early when it is most treatable.

II. Conclusion

Childhood cancer is a devastating diagnosis that affects not only the child but the entire family. While the road to recovery can be long and difficult, there is hope in the form of medical advancements, research, and support networks. Increased awareness, advocacy, and funding are essential in the fight against childhood cancer.

As a society, we must continue to prioritize research and support for paediatric cancer patients and their families. By coming together and shining a light on this silent battle, we can make strides toward a future where childhood cancer is a thing of the past.

Reference:

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