Overview on pediatric cancers oncolytic viruses and parovirus B19 may be oncolytic in leukemic children

Globally, cancer is a problem with devastating effects not only on suffering patients but also for the family and leads to socio-economic burden on every country. The American Cancer Society, CDC, National Cancer Institute, and other agencies have made efforts in cancer registries and one data involving six countries found 2.4 million adults with cancer with improvements in survival trends during 1995–2007 but persistent differences between countries and is persistently higher in Australia, Canada, and Sweden than other European countries. Cancer statistics showed 1.5 million new cases and 0.5 million deaths each year on an average (2004-2010). Scenario of childhood (under 15 yrs) revealed that after injuries cancer is the leading cause of death in the USA. Commonest being leukemia and lymphomas followed by tumors of nervous system, liver and renal are common. Cancer registries showed that 21,026 pediatric cancer cases were diagnosed from 1989 to 1991 by Children's Cancer Group (CCG) or the Pediatric Oncology Group (POG). In 1992–1997 a total of 10,108 children age < 20 years with cancer who were identified by Surveillance, Epidemiology and End Results (SEER) Program. Later during 2009 to 2011 period, 18,580 children were newly diagnosed with cancer while annually, approximately 15,780 incident cancers are diagnosed in individuals aged <20 yrs in USA. In India, cancer registry is poor but it is estimated that about 148,000 cancers occurred in 2008 in children 0–14 years. Research Network (CCRN established in 2008) found that although survival rates have improved, incidence rates remain steady or increased while etiology of most childhood cancers remains unknown however genetic, environmental, dietary, iatrogenic like exposure to repeated X-rays or radiation etc. Oncogenic viruses are well known to cause cancer like Epstein-Barr virus may cause nasopharyngeal carcinoma in children.

Biography
Janak Kishore graduated in medicine did M.D. (Microbiology) in 1985. Currently he is Professor & Chief of Serology, Clinical & Molecular Virology, Department of Microbiology. He was Associate Editor of Indian J Virol, elected member National Academy Medical Sciences, member of American Societies, and got JICA fellowship, Japan. Dr Kishore taught for 34 yrs, published 51 papers. Dr Kishore did pioneer work on human parovirus B19 with three novel clinical associations besides reporting “Oncolytic” property of B19 which fetched awards. He was reviewer for international journals, chaired sessions, invited speaker at international conferences (USA, Canada, Japan, U.K, China).

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