

Clinical characteristics and treatment outcome of children with Philadelphia Chromosome positive acute Lymphoblastic Leukemia – experience from tertiary care center from South India

Maharshi Trivedi

MGM Medical College and MY Hospital, Indore 452001

Abstract

Background: About 3–5% of paediatric patients with acute lymphoblastic leukemia (ALL) have t(9;22)(q34;q11.2) translocation known as the Philadelphia chromosome (Ph). Outcomes of children treated with intensive chemotherapy along with Imatinib are comparable to HSCT. There is limited data about outcome of patients treated with imatinib combined with chemotherapy in developing countries.

Methods: Children of ≤ 14 years of age, diagnosed as Ph+ ALL from January 2013 to December 2017, were included for retrospective analysis. 2 year event free survival (EFS) and overall survival (OS) were noted and outcomes were correlated with NCI risk group, LDH level.

Results: Seventeen children were diagnosed as Ph+ ALL. This included 16(94%) children of B ALL and 1 child (6%) of mixed phenotypic ALL (MPAL). Mean age was 96 months (Range 42-156). There were 13 (76%) and 4 (24%) children with NCI high and low risk criteria, respectively. Fourteen (82%) children received imatinib, while 3 (18%) children died before receiving imatinib. Seven children relapsed, one had very early combined relapse, two children had early bone marrow (BM) relapse, three children had early combined relapse and one child had late BM relapse. Total 11 children died, seven due to relapse and four due to treatment related mortality. At median follow up of 23 months (Range 0-61), 2 year EFS and OS for study group were 57.8% and 64.2%, respectively. 2 year OS for children with NCI high and low risk was 61.5% and 75%, respectively ($p=0.656$). 2 year OS for children with lactate dehydrogenase (LDH) level ≤ 2000 and >2000 IU/dL was 55.6% and 66.7%, respectively ($p=0.945$).

Conclusion: 2 year EFS and OS in India are lower than western countries. Tumour burden or NCI high risk criteria did not affect survival.

India. He has two publications in international journals. Apart from academics he loves to indulge himself in music, writing poems and eco and cultural tourism.

Speaker Publications:

1. Maharshi Trivedi et al ; Rotavirus Gastroenteritis Associated with Encephalopathy, Myositis, Transaminitis and Hypoalbuminemia, 2019 Jul
2. Maharshi Trivedi et al ; Primary Mediastinal Large B-Cell Lymphoma in a Child Presenting With Superior Mediastinal Syndrome and Chylous Pleural and Pericardial Effusion, 2020 Jul
3. Maharshi Trivedi et al ; Oral Vitamin D Supplementation to Mothers During Lactation-Effect of 25(OH)D Concentration on Exclusively Breastfed Infants at 6 Months of Age: A Randomized Double-Blind Placebo-Controlled Trial, 2020 Apr
4. Maharshi Trivedi et al ; Methotrexate Free Chemotherapy and Limb Salvage Surgery for Paediatric Osteosarcoma
5. Maharshi Trivedi et al ; Pediatric Primary Ovarian Angiosarcoma: From Rarity to a Realization 2018 Dec

4th International Conference on
Tumor & Cancer Immunology and Pediatric-oncology
May 08, 2020.

Abstract Citation:

Maharshi Trivedi; Clinical characteristics and treatment outcome of children with Philadelphia Chromosome positive acute Lymphoblastic Leukemia – experience from tertiary care center from South India; Tumor & Cancer Immunology 2020; May 08, 2020.



Biography:

Maharshi Trivedi is a passionate pediatric oncologist with a will to improve outcomes and supportive care among children with cancer. Currently he is working as DM resident, Department of Pediatric oncology, Regional Cancer Centre, Trivandrum,