

Figure 1. Event free survival in children belonging to upper, middle and lower socioeconomic (SE) strata, after excluding patients who died in induction.

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DOES DISTANCE BETWEEN RESIDENCE AND TREATING CENTER IMPACT OUTCOME IN CHILDHOOD ACUTE LYMPHOBLASTIC LEUKEMIA? REPORT FROM A TERTIARY CARE CENTER IN NORTH INDIA

Sidharth Totadri, Amita Trehan, Appinderjit Kaur, Deepak Bansal, Richa Jain. *PGIMER, Chandigarh, India*

Background: Patients in our country often live far from the oncology center. Amongst the numerous socio-demographic factors which affect outcome, it is postulated that outcome may have a relationship to the proximity of the patient to the tertiary care center.

Aim: To study if distance between home and the treating center influenced outcome in childhood acute lymphoblastic leukemia (ALL).

Methods: A retrospective analysis of children diagnosed and treated for ALL from January 2010 to December 2012 were included. Patients were treated as per modified UKALL-2003 protocol. Details of residential address were noted from the database maintained by the social worker. Patients were instructed to stay within an hour's distance of hospital till the completion of delayed intensification phase of therapy. During maintenance therapy, they visit the oncology center monthly from their place of residence. Distance between Chandigarh and district of residence of the patient was recorded. Patients were classified based on this distance in kilometers (km) into 3 groups; group 1: 0-50 km, 2: 50-200 km, 3: > 200 km. Induction failure, death and relapse were included as events for Kaplan-Meier survival analysis.

Results: The study included 308 patients with median age of 5 years (range: 1-13). Male to female ratio was 2.5:1. Numbers of patients hailing from rural and urban areas were 198 (64%) and 110 (36%). Sixty-five (21%), 133 (43%) and 110 (36%) patients belonged to groups 1, 2 and 3. Sixteen patients abandoned treatment. The incidence of abandonment did not differ significantly between the 3 groups ($p=0.305$). Neutropenic deaths occurred in 19 patients during maintenance therapy. However, maintenance deaths were similar among the 3 groups ($p=0.409$). Event-free-survival (EFS) in groups 1, 2 and 3 was not different: $63.7\pm 6.6\%$, $57.8\pm 4.6\%$ and $55.1\pm 5.4\%$ ($p=0.557$, Fig. 1). Overall-survival (OS) did not differ between groups 1, 2 and 3: $76.4\pm 6.2\%$, $75.3\pm 3.8\%$ and $73.4\pm 4.6\%$ ($p=0.810$). EFS and OS did not differ between rural and urban patients ($54.5\pm 3.9\%$ vs. $64.6\pm 5\%$, $p=0.166$; $73.6\pm 3.3\%$ vs. $76.6\pm 4.7\%$, $p=0.524$).

Conclusions: Distance between patients' residence and the treating center does not impact survival in childhood ALL. Patients hailing from rural and urban backgrounds do not differ in their survival.

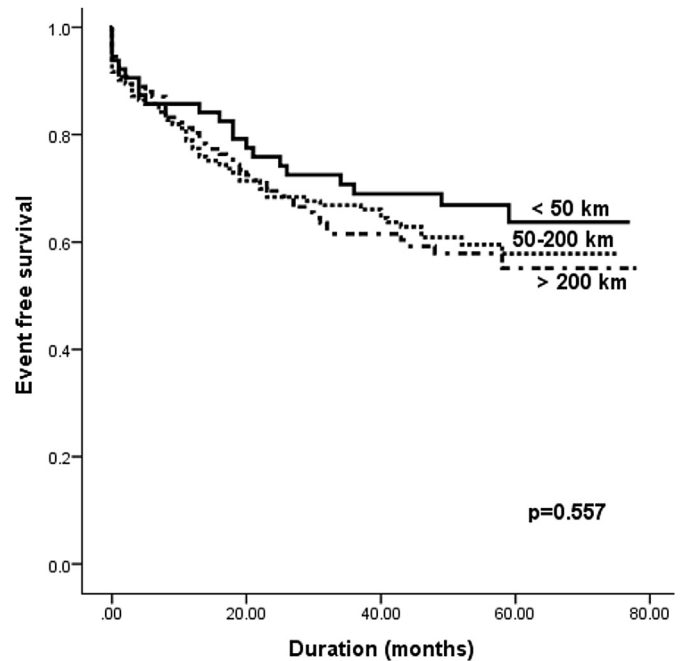


Figure 1. Event free survival of patients belonging to areas < 50 km, 50-200 km and > 200 km from treating center (Chandigarh).

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PROFILE OF INFECTIONS DURING INDUCTION CHEMOTHERAPY IN CHILDREN WITH ACUTE LYMPHOBLASTIC LEUKEMIA

Binitha Rajeswari, K.S. Reghu, C.S. Guruprasad, T. Priyakumari, P. Kusumakumary. *Division of Pediatric Oncology, Regional Cancer Centre, Thiruvananthapuram, India*
E-mail address: drbinithar@gmail.com (B. Rajeswari).

Background: Infections are a major cause of mortality and morbidity in pediatric ALL patients especially during induction chemotherapy. We present the profile of infections among 227 consecutive patients who presented with ALL during an 18-month period. Information on the clinical and microbiological profile of infections is very important in the counseling, management and prognostication of patients with ALL.

Objective: To describe the clinical and microbiological profile, treatment and outcome of infections during induction chemotherapy in children with ALL.

Method: This was a prospective observational study. All children (Age: 1 – 14 years) newly diagnosed to have ALL and seeking the services of the Pediatric oncology division at our Center during the study period were included. Induction chemotherapy was administered as per a modified BFM protocol, for all.

Observations: 227 patients (144 belonged to high risk category and 83 belonged to standard risk category) were enrolled during the study period (January 2014 to June 2015). There were 150 episodes of infection which occurred among 117 patients. Major sites were lung ($n=35$) and GIT ($n=30$). No definite focus of infection was evident in 28%. Blood cultures were positive in 45 episodes (30.6%). Isolates were gram negative organisms ($n=36$; 80%) in the majority in whom culture was positive. Five of the isolates were fungal out of which two were in combination with *Pseudomonas*. 127 episodes were initially treated with first line antibiotics, 19 episodes with second line antibiotics and 4 episodes with third line antibiotics based upon the severity of infection. Eventually, 127 episodes received first line, 47 episodes received second line and 28 episodes received third line antibiotics as per institutional protocol. Antifungals were given in 29 episodes (19.3%). 24 among them were empirical and the rest based on positive culture reports. Intensive supportive care in the form of inotropes or mechanical ventilation was required in 17 episodes (11.3%). One hundred and thirty six (90.6%) episodes resolved without sequelae. Twelve patients (8%) died (One of them had varicella with hepatitis and