

“Chronic myeloid leukaemia in children and adolescents: A single centre experience from Andhra Pradesh”

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ABSTRACT

Chronic Myeloid Leukaemia (CML) constitutes around 3% of leukaemia in the children and adolescent age group. It constitutes around 10% of the CML cases. There are only very few studies from India addressing this leukaemia in this age group. Hence we performed this retrospective study to evaluate the clinical profile of CML in this age group.

No: of References: 1



Materials and methods

This retrospective study was conducted at the department of Medical Oncology. The medical records of all paediatric and adolescent CML cases were reviewed from January, 2012 to May, 2016. The demographic data, clinical features, haematological parameters including the bone marrow analysis reports of all the patients were documented from the records.

All the patients were diagnosed to have CML based on the presence of BCR ABL transcript (either by Fluorescence Insitu Hybridisation or Reverse Transcriptase Polymerase chain Reaction test). The data was tabulated in Microsoft excel sheet and the descriptive statistics were analysed.

Results:

The records of six patients were reviewed of which three were boys. The median age of presentation was 15.5 years (Range 12 – 17 years).

The commonest symptom at presentation was fatigue (5 out of 6 patients) followed by abdominal swelling (4 out of 6 patients). The mean duration of symptoms was 5.3 months (Range 1 to 12 months). Pallor was observed in 3 patients. All patients had massive splenomegaly. The mean splenomegaly size was 16 cms below the right costal margin (Range 6 to 22 cms).

The mean haemoglobin level was 9.37 g/dL (Range 7.6 to 11.2 g/dL), mean total leukocyte count was 187558.3cells/cumm (Range 7000 to 379900 cells/cumm),

mean platelet count was 428000/microL (Range 218000 to 684000/microL) and the mean ESR was 31mm at 1st hour (Range 18 to 75). All the patients were diagnosed to have CML chronic phase based on bone marrow aspiration and the diagnosis of CML was confirmed by the presence of BCR ABL transcript. All the patients were treated with Imatinib.

Discussion

The data on the clinical and laboratory parameters of CML in the children and adolescent age group are scanty, due to the rarity of the disease in this age group. Fatigue and abdominal swelling were the predominant symptoms and splenomegaly was the predominant sign in our study which was similar to study from eastern India. The majority of patients presented in the chronic phase. The median hemoglobin, WBC counts, and platelet counts in our study are higher compared to the analysis by LalitRaut. et al [1]. The present study reflects real scenario of patient care at a tertiary care center which is comparable to the state of the art care. One patient was lost to follow up.

Conclusion

Our study demonstrated that the presenting features of CML in the children and adolescent age group are similar to those shown in other studies. Comparison to the adult cohort was difficult due to the less number of patients. Imatinib was effective and well tolerated in this age group. Longer follow up studies are needed to assess long term results.

References:

LalitRaut, Vinay V. Bohara, Siddhartha S. Ray, PrantarChakrabarti, Utpal Chaudhuri. Chronic myeloid leukemia in

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