

Study of Demographic, Hematological Profile and Risk Stratification in Chronic Myeloid Leukemia Patients

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Abstract : Background: Chronic myeloid leukemia (CML) is the most common leukaemia in India. The annual incidence of chronic myeloid leukemia in India was originally reported to be 0.8 to 2.2 per 1,00,000 population. CML is a clonal disorder that is usually easily diagnosed because the leukemic cells of more than 95% of patients have a distinctive cytogenetic abnormality, the Philadelphia chromosome (Ph1). The approval of tyrosine kinase inhibitors (TKIs), which target BCR-ABL1 kinase activity, has significantly reduced the mortality rate associated with chronic myeloid leukemia (CML) and revolutionized treatment. Material and Methods: 80 diagnosed cases of CML were taken. Investigations were done. Bone marrow and molecular studies were also done and with EUTOS, patients were stratified into low and high-risk groups and then treatment with Imatinib was given to all patients and the molecular response was evaluated at 6 months and 12 months follow up with BCR-ABL by RT-PCR quantitative assay. Results: In the study population, out of 80 patients in the study population, 40 were females and 40 were males, with M: F is 1:1. Out of total 80 patients' maximum patients (54) were in 31-60 years age group. Our study showed a most common symptom of presentation is abdominal discomfort followed by fever. Out of the total 80 patients, 25 (31.3%) patients had high EUTOS scores and 55 (68.8%) patients had low EUTOS scores. On 6 months follow up 36.3% of patients had Complete Molecular Response, 16.3% of patients had Major Molecular Response and 47.5% of patients had No Molecular Response but on 12 months follow up 71.3% of patients had Complete Molecular Response, 16.25% of patients had Major Molecular Response and 12.5% patients had No Molecular Response. Conclusion: In this study, we found a significant correlation between EUTOS score and Molecular response at 6 months and 12 months follow up after Imatinib therapy.

Keywords : chronic myeloid leukemia, European treatment and outcome study score, hematological response, molecular response, tyrosine kinase inhibitor

Conference Title : ICH 2022 : International Conference on Hematology

Conference Location : Montreal, Canada

Conference Dates : June 16-17, 2022