

**Early detection of M351t mutation, by allele specific Oligonucleotide polymerase chain reaction (aso-pcr), in imatinib resistant chronic Myelogenous leukemia (cml) - a retrospective analysis****Mukul.A.Gharote***Gujarat Cancer Research Institute, India*

BCR-ABL Kinase domain mutations represent the most important disease-related factor in CML resistance. Highly resistant clones may preexist and emerge rapidly. Patients with CML can acquire more than one BCR-ABL1 mutation, which may result in increased oncogenicity. Retrospective analysis of 50 patients of Imatinib resistance was done in GCRI, from January 2014 till may 2014. Response to Imatinib was defined according to European leukemia net 2009 (ELN) criteria. Allele Specific Oligonucleotide –Polymerase Chain Reaction (ASO-PCR) was performed on Genomic DNA, extracted from peripheral blood mononuclear cells (PBMCs). Average age was 40.75years, 33 were males and 17 females. 47( 94%) were in Chronic phase, 2(4%) in accelerated phase, 1 (2%) in blastic crisis. 29/50 were having low EUTOS score , whereas SOKAI score was low in 20, intermediate in 21 while only 9 had high SOKAI at presentation. Median duration of Imatinib was 48 months. 43/50 had one or more than 1 mutation. T315I mutation in 5 (10%) patients. M351T in 32% (16/50) .The presence of M351T mutation in mutant clone leads to development of T315I mutations development. The detection of M351T mutation in the initial months of the therapy has a prognostic significance. ASO-PCR is more sensitive method of detection of such mutations as compared to direct sequencing.

**Biography**

Mukul has a vast experience in managing Neo adjuvant, Adjuvant, Concurrent, palliative & targeted chemotherapy with special focus on patient's quality of life. His clinical expertise and acumen extends in managing childhood as well as adult cases of acute leukemia. He has a special interest in managing Hodgkin's and Non-Hodgkin's lymphoma. He has presented several national and international papers on recent advances in lung cancer, prostate cancer, leukemia and lymphoma. He has participated as a Co. investigator in several clinical trials and projects on breast cancer, leukemia & lymphoma

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