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Tryptase - New diagnostic and prognostic marker for AML and CML

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Objectives: To evaluate and compare the levels of serum tryptase in patients of AML and CML before and after treatment and with controls.

Methodology: The study included 25 newly diagnosed patients of AML and 20 newly diagnosed patients of CML and 40 age and sex matched healthy controls. Patients of renal failure, allergic reactions and those already taking chemotherapy were excluded. Serum tryptase levels were estimated in cases and controls by ELISA.

Results: Mean age in AML and CML patients was 58.4 ± 15.73 yrs and 51.4 ± 13.27 yrs respectively. Severe anemia and low platelet count was observed in AML patients in comparison to controls while in CML patients, mild anemia and significantly raised TLC and Platelets was observed compared to controls. Mean value of percent of blast was 57.9 ± 19.65 in AML patients and 7.95 ± 5.90 in CML patients. The levels of uric acid in AML patients was $(6.73\pm1.726 \text{ vs. } 4.37\pm0.834)$, the difference in cases and control group is statistically significant (p<0.001). Serum tryptase levels were higher in AML and CML patients before Chemotherapy in comparison to controls (p value <0.001). Cases with high percentage of blasts were also found to have higher levels. Significant reduction in levels of tryptase was observed in AML and CML patients after chemotherapy (p value<0.003 and p value <0.017 respectively).

Conclusion: Tryptase may be useful for diagnosis, assessment of severity of disease (leukemic cells burden), monitoring minimal residual disease and prognosis of both AML and CML patients.

Biography

P S Ghalaut has completed his MD in Medicine 25 years ago from PGIMS Rohtak and also underwent advanced training in medical oncology at Tata Memorial Hospital Bombay and one year specially training in the field of management of leukaemias & lymphomas including Bone Marrow Transplantation at the University of Wales Cardiff (UK). He is the Director and Head of Department of medicine and hematology at PGIMS Rohtak. He has published more than 75 papers in reputed journals and has been training Postgraduate students since the past 25 years.

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