

Serum Lactate Dehydrogenase (LDH) Activity in Children with Malignant Diseases

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Objective: The measurement of the level of LDH activity in the serum was performed on children with different types of malignant disease and relation between LDH levels and response to chemotherapy was investigated.

Method: Serum lactic dehydrogenase (LDH) levels were measured at diagnosis in 53 patients with different types of malignant diseases and in 37 healthy children matched for age and sex as controls.

Result: The mean LDH level was significantly higher in acute lymphoblastic leukemia (ALL) ($P < 0.001$) as compared to other groups of malignancy. Higher LDH levels in ALL were associated with high leukocyte counts and blast cells ($r = 0.46$, $P < 0.04$, and $r = 0.84$, $P < 0.001$) respectively. A significantly reduced level of LDH was observed in ALL only after induction of chemotherapy ($P < 0.01$). In solid tumors however, specially lymphoma (NHL, Hodgkin's), high LDH levels correlated with extent of tumor mass or stage of disease.

Conclusion: Early measurement of serum LDH could be useful in identifying response to chemotherapy so it is important to determine the prognostic value of this biological marker.