

Alterations of serum enzymes during therapy directed at human malignant sarcomas: a radiological follow-up study of tumor transformation.

Abstract:

When a malignant growth is developing in a patient, one often observes in the serum an increased activity of serum enzymes due to necrosis and increased membrane permeability caused by the altered metabolism of malignant cells. Conversely, I considered it interesting to check the enzymes of the malate-aspartate shuttle in addition to LDH enzyme when a neoplastic growth is regressing due to radiation therapy. The patients who were selected for this study had histologically proved sarcomas (reticulosarcoma, liposarcoma, and post-nasal sarcoma). 2. The data obtained indicated that tumor regression is heralded by progressive decline (to the normal level) of LDH, GOT and MDH activities in serum. Normalization of these systems suggested that reticulosarcoma, liposarcoma, and post-nasal sarcoma are sensitive to the therapeutic agent used. 3. In viewing the data herein reported a definitive conclusion regarding the diagnostic usefulness of these assays is apparent. It seems possible that the measurement of these enzymes in serum of patients with proved sarcomas, may prove to be useful laboratory adjunct to diagnostic radiology and in the management of patients whose diagnosis has already been established.