Lactate dehydrogenase screening is not prognostic for isolated orbital lymphoma

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Background:

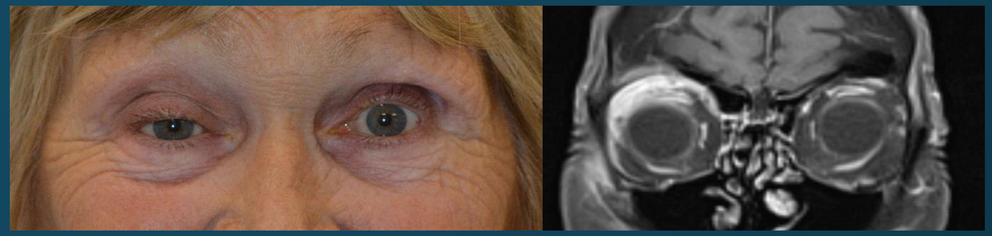
- Elevated lactate dehydrogenase (LDH) is a recognised prognostic marker in Non-Hodgkin's Lymphoma (NHL) for disease-free and overall survival rates.
- NHL is the most common orbital malignancy in adults.
- Some clinicians routinely check LDH when investigating orbital masses
- We examined the relationship between serum LDH and biopsy-proven orbital lymphoma to determine its role in these patients

Methods:

- Patients were identified from a 10-year series of orbital biopsies in one centre
- Patients with biopsy-proven lymphoma and serum LDH level were included
- Grade of lymphoma, evidence of recurrence and association with systemic disease were noted.

Results:

- 18 patients met the inclusion criteria, with 21 biopsies and LDHs recorded.
- 12 patients had low-grade lymphoma (11 marginal zone, 1 follicular)
- 6 patients had high-grade lymphoma (5 diffuse large B cell, 1 T cell)
- 2 patients required more than 1 biopsy (1 patient non-diagnostic initial biopsy, 1 patient 2 relapses)
- There were 3 abnormal LDH results (14.3% of tests, 16.7% of patients): 2 high, 1 low.



A patient with high-grade T-cell lymphoma

Abnormal LDH levels

Case 1:

- Low level – occurred at non-diagnostic biopsy
- Normal level at repeat biopsy – diagnosed with localised high-grade T-cell lymphoma
- Later developed systemic disease, from which they died

Case 2 and 3:

- High (but <2x upper limit of normal)
- Diagnosed with marginal zone lymphoma
- No evidence of systemic disease
- No recurrence to date

Conclusions:

- LDH levels are usually normal at the time of biopsy in patients with orbital lymphoma
- In our series, elevated levels were not associated with high-grade disease, systemic involvement, or recurrence
- LDH levels are unlikely to change clinical management in this population
- We recommend testing is ***reserved as an oncology-led test*** for prognostic scoring systems in patients with systemic disease